Priority Rating System Guidance and Form for Clean Water State Revolving Fund, Drinking Water State Revolving Fund, State Wastewater Reserve, and State Drinking Water Reserve Funding Programs

This guidance aids the Applicant in understanding and implementing the Priority Rating System for the Clean Water State Revolving Fund (CWSRF), Drinking Water State Revolving Fund (DWSRF), State Wastewater Reserve (SWWR), and State Drinking Water Reserve (SDWR). **Use this guidance only for projects seeking funding through these programs.** For CDBG-I, please use the separate guidance appropriate for that program.

Each application earns priority points for only one Project Purpose. See discussion under Category 1 - Project Purpose. If you are unsure of how to classify the application, please contact the Division staff.

Submittal Requirements

All supporting documentation to determine priority points must be submitted with the funding application. Please ensure that submittals provide clear information needed to determine points. Additional information will not be requested. Points will be determined based solely on the information submitted.

1. A completed Rating System point sheet form must be submitted with the funding application. There are two different point sheets at the end of the guidance. Be sure to use the one that is appropriate for the system type (wastewater or drinking water). To claim points for a particular line item, mark "X" on the point sheet. For each point category, provide the subtotal of points claimed listed on the score sheet.
2. A Rating System Narrative along with supporting documentation as required by this guidance must also be submitted. The narrative is part of the application. Follow the outline below; the categories correspond to the categories in the Rating System point sheet form. Address every applicable Line Item.

   Priority Rating System Narrative
   [Funding Applicant]
   [Project Name]

Category 1	Project Purpose
Category 2	Project Benefits
Category 3	System Management
Category 4	Affordability

   - The narrative must be consistent with information in the Division of Water Infrastructure Application for Funding (DWI Application), Financial Information Form and other supporting information.
   - The narrative must be complete to provide for accurate rating and concise enough that critical information is not lost in unnecessary text. Text should only provide information related to this Rating System (e.g., do not describe other benefits that are not included in the Priority Rating System).
   - If there are no applicable points in any given category, state that there are no applicable points under that heading.

3. Maps are very useful in determining priority points. Maps should include sufficient labels of geographical references and be at a readable scale. Individual line items may require specific maps as listed below.

CWSRF, DWSRF SWWR, and SDWR Rating System Narrative Guidance

Category 1 – Project Purpose

An application can earn points in Category 1 based on the Project Purpose as documented in this section. Although a project may serve several purposes, an application can earn points for only one Project Purpose.

- To earn Priority points for a Project Purpose, all parts of the project must serve the claimed Project Purpose. If any part of project does not serve the higher-scoring Project Purpose, the application earns only the points for a lower-scoring Project Purpose that all elements of the project serve.

The project narrative must fully describe the proposed project and how each element serves the Project Purpose claimed on the Rating System Form. The claimed Project Purpose must be consistent with all information provided (e.g., on the Division Application Project Description).

Although an application can earn points for only one Project Purpose (for example, Line Item 1.D), additional points for a sub-category (Line Item 1.D.1, replacing old infrastructure) may also be earned. An application cannot earn points for any other combination of Project Purposes.

Note: Projects that do not receive Project Purpose points may still be eligible for funding.

Line Item 1.A – Consolidate a Nonviable Public Water Supply System or Wastewater Utility

Wastewater: 25 points Drinking Water: 25 points

An application earns points if the application documents that the sole purpose of the project is to consolidate a nonviable public water supply or wastewater system.

Consolidation projects that earn priority under this Line Item receive a number of benefits in priority review:

- Enhanced Principal Forgiveness: Such consolidation projects may receive 100 percent principal forgiveness or grant funding up to three million dollars regardless of the eligibility calculated based on 'affordability'.
- Other Priority Points: Such consolidation projects qualify for priority under Line Item 2.B (for drinking water) or 2.C (for waste water).
- After-the-fact Application: An applicant is eligible for these consolidation points up to two years after the date of merger. Such an applicant must provide documentation showing date of merger.
- Best-applicant scoring: Such a consolidation project can receive priority points based on either the rescuing system or the nonviable system on a line item by line item basis. (e.g. the rescuing system information will generally receive more Category 2 **System Management** points, and the nonviable system data will generally receive more Category 4 **Affordability** points)

Nonviable includes the following:

1. A failing drinking water system: In this context, *failing* means a system that the Division of Water Resources'(DWR) Public Water Supply (PWS) Section has determined is: 1) an unapproved public water system or a "grandfathered" public water system (i.e., a system that existed before current construction standards were established) that is not able to maintain compliance with current operational standards or maximum contaminant levels (MCL); 2) an approved system whose source of water has become contaminated and the system owner demonstrates inability to resolve a MCL violation due to a lack of

technical, financial, or management capacity in accordance with the Safe Drinking Water Act, Sections 1420(b)(1) and 1414(h), and NCAC 15A 18C .0300.

Note: If you are interested in a project to eliminate a failing system, please contact the Regional Office of the Public Water Supply Section of Division of Water Resources for the county in which the project is located.

To document eligibility for such a project, the Chief of the Public Water Supply Section of the Division of Water Resources will provide a letter that does the following:

- identifies both the failing and acquiring systems by name and by PWSID Number; and
- states that the system to be consolidated is failing.

The application must document that both the failing system and the acquiring system are willing to undertake the proposed consolidation, such as the following:

- an interlocal agreement between the two systems (can be Draft),
- minutes of a joint meeting showing the acquiring system's interest,
- a memorandum of understanding between the two systems,
- a letter from the acquiring system stating its interest, or
- similar documentation.

The documentation must make clear that the project will eliminate the failing system by consolidating it into the acquiring system.

Example Narrative for Line Item 1.A (Failing Water System)

The Range Mobile Home Park water system (PWSID No. NC9902999) is failing due to improper construction of the waterlines resulting in frequent leaks that drain the hydropneumatic tank and shut down the system. The Range Mobile Home Park water system has lost pressure and the related *E. coli* MCL violations have required boil-water notices 17 times in the last 5 years. The proposed project will eliminate the Range Mobile Home Park water system by consolidating it into the Town of Smallville system (PWSID No. NC9902998). The DWR-PWS Section Asheville Regional Office asked the Town of Smallville to consolidate the Range Mobile Home Park water system, and the Town of Smallville agreed. An agreement to consolidate the Range Mobile Home Park water system into the Town of Smallville water system has been drafted. Copies of the following are included:

- Correspondence from the DWR-PWS Section Chief stating that the Range Mobile Home Park is failing, and
- The draft agreement between the Town and the owners of the Range Mobile Home Park.

2. A failing wastewater system: In this context, *failing* means a system that the Division of Water Resources'(DWR) Water Quality Regional Operations Section has determined is: 1) an unapproved wastewater system or a "grandfathered" wastewater system (i.e., a system that existed before current permitting construction standards were established) that is not able to maintain compliance with current operational standards or limits; 2) an approved system who is continuously out of compliance and the system owner demonstrates an inability to resolve the violation due to a lack of technical, financial, or management capacity.

Note: If you are interested in a project to eliminate a failing wastewater system, please contact the Regional Office of the Water Quality Regional Operations Section of Division of Water Resources for the county in which the project is located.

To document eligibility for such a project, the Chief of the Water Quality Regional Operations Section of the Division of Water Resources will provide a letter that does the following:

- identifies both the failing and acquiring systems by name; and
- states that the system to be consolidated is failing.

The application must document that both the failing system and the acquiring system are willing to undertake the proposed consolidation, such as the following:

- an interlocal agreement between the two systems (can be Draft),
- minutes of a joint meeting showing the acquiring system's interest,
- a memorandum of understanding between the two systems,
- a letter from the acquiring system stating its interest, or
- similar documentation.

Example Narrative for Line Item 1.A (Failing Sewer System)

The Upside Down Subdivision sewer system is failing due to deferred maintenance and improper construction. The Upside Down Subdivision has been cited with 3 NOVs for repeated SSOs in the last 3 years. The proposed project will eliminate the Upside Down Subdivision system by consolidating it into the Town of Winden. The DWR- WQRO Section Raleigh Regional Office asked the Town of Winden to consolidate the Upside Down Subdivision system, and the Town of Winden agreed. An agreement to consolidate the Upside Down Subdivision system into the Town of Winden sewer system has been drafted. Copies of the following are included:

- Correspondence from the DWR- WQRO Section Chief stating that the Upside Down Subdivision sewer system is failing, and
- The draft agreement between the Town and the owners of the Upside Down Subdivision.

3. Nonviable system: In this context, a *nonviable system* means a public water supply system or wastewater utility owned by a local unit of government (LGU) that the Division of Water Infrastructure has determined is nonviable, **prior to the application deadline.**

   To be determined to be nonviable, the Applicant and the acquiring system must meet with the Division at least 30 days before the application deadline to discuss the current situation and the proposed application.

Note: If you are interested in a project to consolidate a nonviable system, please contact the Division of Water Infrastructure.

The application must include documentation to show that both the nonviable system and the acquiring system are willing to undertake the proposed consolidation, such as the following:

- an interlocal agreement between the two systems (can be Draft),
- minutes of a joint meeting showing the acquiring system's interest,
- a memorandum of understanding between the two systems,
- a letter from the acquiring system stating its interest, or
- similar documentation.

The application must include a resolution by the governing board of the nonviable system stating that the system is nonviable and explaining why. This resolution may use the template provided by the Division.

The documentation must make clear that the project will eliminate the nonviable system by consolidating it into the acquiring system.

Notes: For a project that receives points under this line item:

- An application may use the financial information for either the non-viable or the acquiring system to calculate points under Category 4 – Affordability.
- An application may claim points under Category 2 – System Management based on the policies and actions of the acquiring system.

Example Narrative for Line Item 1.A (Nonviable System)

The Town of Abandonado water system (PWSID NC13 30786 is nonviable, as evidenced by the following:

- The Towns of Abandonado and Desarollo met with the Division on 15 April 2019 to discuss the need for the project.
  - Abandonado stated it is unable to maintain the system with so few connections, and showed several Unit Letters from the LGC;
  - Abandonado stated the system is nonviable;
  - Desarollo stated its interest in acquiring the Abandonado system, once repaired.
- The Town of Abandonado passed a resolution stating that its water system is nonviable, attached as Appendix F.
- Abandonado's CIP has identified the funding source for the WTP rehab project as "successful application" and scheduled the project 'next year' for the past seven years.
  - Abandonado only applied for that grant three of those seven years.
  - Despite that capital planning, Abandonado has not been maintaining its water infrastructure, and spent no money on planned capital expenditures (only emergency repairs) in the past seven years.
- Abandonado's Operating Ratio has not exceeded 0.95 in the past 5 years. Copies of the audit pages and calculations appear as Appendix G.
- Considering depreciation, Abandonado's Operating Ratio has not exceeded 0.75 in the past 5 years. Copies of the audit pages and calculations appear as Appendix H.
- Attached as Appendix I is an engineer's calculation that Town of Abandonado customers an extra $55/month (for a total of $110/month) to pay off a zero interest 20-year loan for this project – assuming no other capital improvements are needed.
- Other capital improvements are needed. The Town must replace most of the waterlines downtown, at approximately the same cost as this project. The combined rate impact of these two projects would triple the water rate (See Appendix J for the engineer's calculations).

The Memorandum of Understanding between Abandonado and Desarollo (which will take over the system after this project) is also attached as Appendix Z.

Line Item 1.B - Resolve Failed Infrastructure

Wastewater: 15 points *Drinking Water: 25 points*

An application earns points if the sole purpose of the project is to resolve failed infrastructure. In this context, the definition of *Failed Infrastructure* is limited to the following cases:

For wastewater systems:

1. Failed septic systems, where the Applicant's sewer collection system will be extended to tie on the area where the houses with failed septic systems are located. Division of Water Resource permitted single-family residence discharges (NCG550000) and single-family residence spray / drip irrigation systems are included in this Project Purpose. Or,
2. A failed non-discharge permitted disposal area, such as a failed spray/drip irrigation field or infiltration basin, where the actual disposal capacity is less than what is currently permitted and there is a subsequent loss of disposal capacity limiting the Applicant's WWTP ability to dispose of its

treated effluent. The proposed project must either repair the permitted non-discharge disposal system or build a new non-discharge disposal system to restore the capacity lost.

For drinking water systems:

1. A well that has become contaminated and provides water exceeding the MCL, or
2. A well whose yield has declined and no longer provides sufficient water.

Proof of Failure: To document these points, provide the following:

For wastewater systems:

1. For failed septic or DWR-permitted single-family residence discharges and single-family residence spray / drip irrigation, the documentation will be provided under Line Item 2.C.
2. For failed non-discharge permitted disposal areas (spray fields/infiltration basins:
   - A copy of the non-discharge permit
   - A letter or correspondence from the Department of Environmental Quality (DEQ) Regional Office that the disposal field/basin serving the project area has failed, and any associated Notice of Violations.
   - For projects addressing failed WWTP disposal fields/basins, a map of the WWTP and spray fields/basins with property lines, indicating which fields/basins have failed, and the location(s) of new fields/basins if they are being added.

   Note that the proposed project can only serve to restore the disposal capacity back to the original permitted capacity. Increasing the disposal area for future growth is not permitted under this line item. Projects that expand infrastructure disposal capacity qualify under Line Item 1.D.

For drinking water systems:

1. For Contaminated Well:
   - For a contaminated well serving a public water supply system, provide documentation that the well previously met the MCL and no longer does so. Only a project that also earns points under Line Items 2.H or 2.I is eligible under this Line Item.
   - For a contaminated privately-owned well, provide documentation that the well previously met the MCL and no longer does so. Only a project that also earns points under Line Items 2.H or 2.I is eligible under this Line Item.
2. For Dry Well:
   - For a dry well serving a public water supply system, provide documentation that the well has gone dry. Only a project that also earns points under Line Item 2B for a dry well is eligible under this Line Item.
   - For dry privately-owned wells, provide the following:
     - a testimonial letter from each homeowner,
     - a letter from the County Health Department stating that the well(s) have lost yield to the point that residents no longer have a reliable water source for drinking and bathing, and

- a map of the project area in a readable scale, with geographical coordinates, showing street names with the location of the well(s) clearly marked or colorized.

Note that a project that expands capacity in excess of replacing failed infrastructure cannot earn points under this line item. Provide documentation or calculations showing how or why the project does not increase capacity when it's not an obvious like-for-like replacement (replacing a pump station with gravity sewer, for example, or replacing a failed well with an interconnection).

Example Narratives for Line Item 1.B (Wastewater)

Narrative that is NOT sufficient: The Center Avenue Subdivision contains soils that are not suitable for septic systems, and failures of septic systems in this neighborhood are likely. **(Not sufficient because a letter from a registered sanitarian or a licensed soil scientist has not been provided.)**

Narrative that IS sufficient: The septic systems in the Center Avenue Subdivision were installed in 1969. Systems located at 426 Center Avenue, 212 Maple Street, and in the 100 block of Chestnut have failed. A letter from the local County Health Department is attached documenting these failures.

Example Narrative for Line Item 1.B (Drinking Water)

The Peter Subdivision (PWSID No. NC1234567, 17 connections, population 50) is served by a single failed well that no longer provides sufficient water. The project proposes to extend 300 feet of 6-inch waterline from the town of Rossville (PWSID No. NC1234568) to serve the subdivision, which will become a purchased-water system.

Attached are the following:

- The original drawdown tests showing a yield of 30 gpm (432 gpd per person) and a recent drawdown test showing a yield of 5only 10 gpm (72 gpd per person). This 10 gpm does not satisfy the system's needs;
- A letter from the ZZ County Health Department stating that the well has lost yield to the point that residents no longer have a reliable water source for drinking and bathing;
- Pump run time records showing that the well has been over-pumped (average 14 hours/day in 2013 and 2014); and
- A map of the subdivision in a readable scale, with geographical coordinates, showing street names with the location of the well(s) clearly marked. This map shows that 300 feet of 6-inch waterline will enable Rossville to connect to the subdivision's water system near the well.

Line Item 1.C – Rehabilitation and Replacement

Wastewater: 15 points *Drinking Water: 12 points*

An application earns points if the project will replace, repair, or rehabilitate wastewater or drinking water infrastructure with no increase in capacity. Projects may include the rehabilitation/replacement of gravity sewer, sewer pump station and forcemain infrastructure; rehabilitation/replacement of wastewater treatment infrastructure; water treatment plant upgrades (including adding a new operation such as UV disinfection); rehabilitation/replacement of waterlines; rehabilitation/replacement of water pump stations; or rehabilitation/replacement of water tanks.

Replacement means either the infrastructure is still in service or that it went out of service less than one year before the application deadline. A project to replace infrastructure that went out of service one year or more before the application deadline is considered either expansion (Line Item 1.D) or new (no project purpose), as

applicable for that type of infrastructure. If replacing equipment that is currently out of service, provide a statement explicitly stating the last time that the equipment was in service.

For wastewater projects:

1. Rehabilitation and/or replacement of gravity sewer, pump station and forcemain infrastructure (with no increase in capacity) include:
    - Replacement of a pump station with station/equipment that provides the same permitted firm capacity.
    - Sewer lines that are like-size replacements or no larger than 8-inches.
    - Replacement projects that include upsizing gravity sewer lines to meet minimum 8-inch diameter size criteria.
    - Gravity sewers that replace pump stations and provide the same capacity. However, 8-inch gravity sewers may be installed to meet minimum design criteria which may result in a greater capacity than the replaced pump station. The Applicant must include engineering calculations to support this determination.
    - Enhancements at pump stations that do not add capacity, such as SCADA, VFDs, etc.
    - Replacement of a WWTP with sewer infrastructure (pump station, gravity sewer, etc.) to send flow to another WWTP if:
        - The new infrastructure does not provide for the inclusion of additional service area and/or increases WWTP capacity, and
        - The receiving WWTP provides equal or better treatment of received waste.

Note: Increasing the disposal area for future growth is not allowed under this line item. Projects that expand infrastructure capacity qualify under Line Item 1.D.

For drinking water projects:

2. Rehabilitation and/or replacement of waterlines, pump stations, and tanks include:
    - The new waterline is smaller than the existing waterline;
    - The new waterline is the same size as the existing waterline; or
    - The new waterline is no larger than 6-inches.
    - Enhancements at pump stations that do not add capacity, such as SCADA, VFDs, etc.
    - Replacement of a WTP with infrastructure (wells, pumps, water lines, etc.) to transfer water if the new infrastructure does not increase treated water capacity or provide for additional service area.
    - Water tank rehabilitation/or replacement that does not increase the capacity of the tank.

New waterlines where there are not currently water lines do not earn these points; however, a *de minimis* level of new lines to form loops is allowed. The cost of new waterline (e.g. for the purpose of looping) cannot exceed 10% of the total cost of waterlines in the project and cannot provide new service to currently unserved areas.

The narrative must include tables and maps showing that each of these conditions is met. For a project that includes waterline looping, the cost of replacement waterlines and the cost of the new (loop-closing) waterlines must appear as separate items in the project budget.

For either type of project:

3. Rehabilitation and/or replacement projects at existing treatment facilities to replace, repair and/or add infrastructure (with no increase to the permitted treatment capacity) include:
    - Rehabilitation and replacement of infrastructure and equipment with the same or similar capacities.
    - WWTP upgrades that do not increase treatment capacity including those to provide nutrient removal to meet nutrient limits (wastewater projects).
    - WTP upgrades that do not change production capacity of the plant, such as UV disinfection or a redundant filter (drinking water projects).
    - Raw water supply projects that do not increase the capacity of the plant to produce treated water, such as:
        - Surface water intake structures, raw water lines, raw water pump stations and offstream raw water storage.
        - Additional wells that feed raw water to an existing treatment facility.
4. Other Projects may earn points if the provided documentation and calculations specifically demonstrate that the infrastructure capacity is not increased.

To earn points under this line item for any of the project types listed above (Numbers 1-4), the narrative must clearly:

- State that equipment will be like-size replacements with the same capacities (within five percent);
- State that each component of the project (e.g., each sewer line, each pump station, each forcemain, each water line, etc.) that is being rehabilitated or replaced will not change the capacity of that component;
- For upgrades and equipment replacements at WWTP or WTP, specifically state that the upgrades will not exceed the current approved permitted capacity of the plant;
- Provide documentation or calculations showing how or why the project does not increase capacity when it is not an obvious like-for-like replacement (replacing a pump station with gravity sewer, for example);
    - Closest nominal size for different pipe materials (*e.g.*, 15-inch VCP to 16-inch PVC)
    - Note that 10-inch waterline still exists, so 10-inch to 12-inch is expansion; and
- Include a map that clearly shows the existing wastewater or water infrastructure to be rehabilitated/replaced.

Notes:

1. A project can include residential meter replacement/installation for those meters that are on waterlines being installed, replaced, or rehabilitated. Otherwise, projects that include residential meter replacement do not earn points under this line item.
2. A project that replaces capacity from a regional facility does not qualify for points under this line item. A new facility with new discharge or permit is considered new infrastructure and does not qualify for project type points.

Example Narratives for Line Item 1.C (Line Rehabilitation/Replacement)

Narrative that is NOT sufficient: The proposed project will replace the existing 1,000 gpm pump station (or booster station for drinking water projects). ***(Not sufficient because no statement is provided to confirm that the replacement is a like-for-like size replacement.)***

Narrative that IS sufficient: The proposed project will replace the existing 1,000 gpm pump station (or booster station) with a new 1,000 gpm pump station (or booster station).

Narrative that IS sufficient: The proposed project to replace the deteriorated 10-inch line will be a like-for-like replacement.

Narrative that IS sufficient: The proposed project will remove the Main Street Pump Station and replace it with gravity sewer that will convey the same amount of flow. Calculations comparing the capacity of the proposed gravity sewer and the existing pump station are included.

Narrative that IS sufficient: The proposed rehabilitation project will upgrade the 6-inch gravity sewer to 8-inch gravity sewer to meet 15A NCAC 2T .0305(i)(1).

Narrative that IS sufficient: The proposed project will replace any waterlines smaller than six inches with six-inch waterline.

Example Narratives for Line Item 1.C (Wastewater Treatment Plant Rehabilitation)

The WWTP's existing coarse bubble aeration equipment will be replaced with new fine bubble diffusers and more efficient blowers, which will result in an energy savings of 30 percent as shown in the provided calculations.

The WWTP project involves constructing new anaerobic digesters and the digester gas will be used in a combined heat and power (CHP) system as fuel to generate electricity and heat for in-plant uses.

Water Treatment Plant Rehabilitation

The project will replace the WTP's existing filter media. The project will also install the following new equipment:

- a new air scour system will replace the existing backwash system.
- powdered activated carbon (PAC) unloading, storage, handling and metering equipment for taste and odor during algal blooms.

The project will not increase the WTP's capacity to produce water.

Line Item 1.C.1 – Replace old Infrastructure

Wastewater: 10 points *Drinking Water: 8 points*

An application that earns points under Project Type 1.C earns additional points if the application documents that at least 50% of the project construction cost is for some combination of the following:

- Replacing, repairing or rehabilitating intake structures, drinking water wells or tanks that are more than 40 years old as of the date of application (drinking water projects only); or
- Replacing, repairing or rehabilitating sewer or water lines that are more than 40 years old as of the date of application; or
- Replacing, repairing or rehabilitating pumps, pump stations, wastewater or water treatment units that are more than 20 years old as of the date of application.
- Replacing, repairing or rehabilitating SCADA, process control, information technology or power systems that are more than 20 years old as of the date of application.
- The Division assumes the following pipe material types are older than the threshold: Asbestos Cement (ACP), Vitrified Clay (VCP), galvanized iron and bituminized fiber (e.g., Orangeburg) pipe.

For a project to receive these points, the narrative must include a specific statement of the year of construction, how the age is known, and associated documentation, if available. Documentation may include, but is not limited to, plans showing the date of installation, the final approval letter, maintenance records, housing plats, blue prints, printed information from NC One-Map, and operator knowledge. In summary, describe how you know that the items are older than the threshold.

A project might replace, repair or rehabilitate some infrastructure components old enough to earn the points and other components that are not old enough to earn the points. To earn the points, the Project Budget page in the Division Application must show that at least 50% of the construction cost of the project meets the above requirements. Therefore, those infrastructure components old enough to earn the additional priority points and those components not old enough to earn the additional priority points must appear as separate line items. Age is determined component by component rather than for the entire facility.

For a project to earn these priority points:

- The Project Budget page in the Division Application must distinguish the construction cost for components old enough to earn the points from the construction cost for those components that are not old enough and the narrative must include subtotals for construction items that qualify as replacing old infrastructure; and
- All other information in the Division Application must be consistent with the Project Budget.

Example Narrative for Line Item 1.C.1

The existing 12-inch pipe that will be rehabilitated was installed prior to 1960. A copy of the as-built plan sheet showing the date of construction is included.

Line Item 1.D - Expanded Infrastructure

Wastewater: 2 points *Drinking Water: 2 points*

An application earns points if the project expands the existing collection and distribution system or treatment facilities to accommodate either existing capacity deficiencies or future flows. For drinking water

infrastructure, an application earns points only if the project is primarily addressing current need rather than future growth. Note that in general new lines/pump stations are only allowed under this line item if it is needed to consolidate existing WWTPs.

Expansion requires either the infrastructure is still in service or that it went out of service less than one year before the application deadline. If replacing equipment that is currently out of service, provide a statement explicitly stating the last time that the equipment was in service. A project to expand infrastructure that went out of service one year or more before the application deadline is considered *new* infrastructure and earns no project purpose points.

Expansion includes the following categories of projects:

1. For collection and distribution systems:

   For wastewater:

   - Increase existing sewer pipe diameter to provide for future capacity and/or alleviate existing capacity deficiencies,
   - Increase existing pump station capacity to provide for future flows or alleviate existing capacity deficiencies,
   - Provide new sewer lines/pump stations needed to consolidate existing WWTPs and provide capacity for the increased service area (wastewater projects only),

   For drinking water:

   - Increase existing water line pipe diameters to address current needs,
   - Increase existing booster station capacity to alleviate existing capacity deficiencies,
   - Provide new infrastructure needed to consolidate existing infrastructure (wells, pumps, water lines, etc.) to transfer water to address current needs.
   - New waterlines where there are not currently water lines (e.g., waterline extensions) do not earn these points; however, a *de minimis* level of new lines to form loops is allowed subject to the same restrictions and documentation requirements outlined in 1.C.
   - Additional wells, booster pumps, or storage tanks to meet current needs.

2. For Treatment Facilities:

   - Increasing the permitted capacity of an existing WWTP (the facility will require a new NPDES permit flow sheet).
   - Expanding a water treatment plant to produce more treated drinking water.

The documentation must:

- Provide a clear description of the project: explain what is being expanded and what is its current and proposed capacity.
- Provide a project map that clearly shows the existing infrastructure to be expanded.
- Provide other documentation, as appropriate.

Note: New waterlines solely to serve future development are not eligible for funding. See 40 CFR 35.3520(e)(5).

Example Narratives for Line Item 1.D (Collection and Distribution Lines)

Narrative that is NOT sufficient: A town plans to install a new interceptor and pump station to receive flow from future industry and a subdivision. ***(Not sufficient because the reason for any new sewer line or pump station must be solely to consolidate existing WWTPs.)***

Narrative that is NOT sufficient: The town plans to install a new waterline to provide water to future industry and a subdivision. **(*Not sufficient because a project cannot be justified to serve future population growth. The documentation does not make clear whether the subdivision is future growth or an existing water system with e.g., inadequate supply.*)**

Narrative that IS sufficient: A town plans to install a major interceptor to take one of its WWTPs off-line and shift the flow to another under-utilized WWTP, while also providing for an increase in the WWTP's service area.

Narrative that IS sufficient: The Town of Easter proposes to install an additional well to provide redundancy in supply.

Narrative that IS sufficient: Portions of a town's water system (8-inch) are undersized to handle existing water flows as evidenced by documented low pressures during times of peak use; this project will upsize these lines to 12-inches.

Narrative that IS sufficient: Portions of a town's sewer system (8-inch and 10-inch lines) are undersized to handle existing wastewater flows as evidenced by surcharging manholes; this project will upsize these lines to 16-inches to prevent the manhole surcharging.

Narrative that IS sufficient: A town has an interceptor that needs to be upsized from 12-inch diameter to 18-inch diameter to accommodate additional future flow.

Example Narrative for Line Item 1.D (Treatment Plants)

The proposed project will expand a WWTP from its currently permitted capacity of 0.500 MGD to 1.00 MGD. The associated NPDES Permit for the increased capacity has been received (or if not yet received, provide status).

The WTP has a rated capacity of 0.50 MGD. The maximum daily demand for the past three years has been approximately 0.72 MGD. The system has met the maximum daily demand by a combination of the following:

- Operating the filters in excess of 4.0 gph/sqft, and
- Purchasing additional water from the county system.

Therefore, the project is *justified* to meet current demand.

The project is *sized* to accommodate reasonably expected future growth: Based on continuing the past ten years growth in population (see tables and graph below), the maximum daily demand in 20 years will be 0.92 MGD. Therefore, the proposed project will expand the WTP from its rated capacity of 0.5 MGD to 1.0 MGD.

Line Item 1.D.1 – Expanded especially old infrastructure
Wastewater: 10 points Drinking Water: 8 points

An application that earns points under Project Type 1.D earns additional points if the application documents that at least 50% percent of the construction cost of the project is for infrastructure meeting the age requirements of 1.C.1 above. This Line Item requires the same documentation as 1.C.1. Note that to earn 1.D.1 points, the aged infrastructure must be taken out of service. Expansion by parallel construction does not earn these points.

Line Item 1.E & 1.E.1 – reserved for the CDBG Program

Line Item 1.E.2 – reserved for the CDBG Program

Line Item 1.F - Stream/Wetland/Buffer Restoration (GREEN Project)
Wastewater: 15 points (CWSRF Only) Drinking Water: Not Applicable

A project that will restore a stream, wetland, or buffer from its existing substandard state to a more natural state including vegetated buffers or soft bioengineered stream banks qualifies for 20 points under this Project Purpose, and is considered a GREEN Project that may be funded by a CWSRF loan with a one percent interest rate discount. Stream daylighting that removes natural streams from artificial pipes and restores a more natural stream morphology is included. The narrative must:

- Clearly describe the proposed project, and
- Include a map that shows the location of the project and the streams, wetlands, and/or buffers that will be restored

Projects may also qualify for Line Items 1.F.1 and/or 1.F.2 below for additional points.

Line Item 1.F.1 – Restoration of a first-order stream, including Stormwater Infiltration BMPs (GREEN Project)
Wastewater: 5 points (CWSRF Only) Drinking Water: Not Applicable

If the stream/wetland/buffer restoration project occurs along a first-order stream and includes stormwater infiltration Best Management Practices (BMPs), the project qualifies for additional points.

The narrative must discuss key considerations related to the feasibility of implementing the proposed BMP, as well as a map that shows the location and name of the first-order stream, the streams/ wetlands/buffers that will be restored, and the location of the stormwater infiltration BMPs.

Line Item 1.F.2 – Establishment or Restoration of Permanent Riparian Buffers to at Least 30 Feet on both sides of a Stream (GREEN Project)
Wastewater: 5 points (CWSRF Only) Drinking Water: Not Applicable

If the stream/wetland/buffer restoration project includes the establishment or restoration of the riparian buffer, the project qualifies for additional points. Establishment or restoration of a riparian buffer must include:

- Establishment of a buffer where one does not exist or restoration of existing vegetation in a buffer meeting the following criteria:
  (i) Woody vegetation for zone one (30 feet) of the buffer, and
  (ii) Woody or herbaceous vegetation for zone two (Zone 1 plus 20 feet) of the buffer.
- A minimum of 30 feet on each side of the stream must be protected. Note that the maximum buffer width that is eligible for funding is 50 feet on each side of the stream.

- The removal of all stormwater discharges through the buffer that are not associated with natural drainageways.

Line Item 1.G - Stormwater BMPs to treat existing sources of pollution (GREEN Project)
Wastewater: 15 points (CWSRF Only) Drinking Water: Not Applicable

A stormwater project that provides for the construction and/or installation of Best Management Practices (BMPs) that treat existing sources of pollution qualifies for points under this Project Purpose and is considered a GREEN Project that may be funded by a CWSRF loan with a one percent interest rate discount. The proposed BMPs are not required to meet all of the design criteria contained in the latest version of the NCDEQ Stormwater BMP Manual (BMP Manual); however, the narrative must include explanations as to why the criteria cannot be met (e.g., limited space within the existing watershed). The narrative must also:

- Clearly describe the existing sources of pollution
- If any future development will be served by the BMPs (in addition to existing sources), provide the percentage of impervious area that will be tributary to the BMPs for both future development (estimated) and existing development.
- Include a list of the potential types of BMPs to be used and the key considerations related to the feasibility of implementing each type of proposed BMP
- Include a map that shows the location of the proposed BMPs

Line Item 1.G.1 – Stormwater BMPs that Achieve Nutrient and Solids Reduction (GREEN Project)
Wastewater: 10 points (CWSRF Only) Drinking Water: Not Applicable

Projects that qualify for additional points under this Project Purpose include BMPs or BMPs in series as specified in the latest version of the NCDEQ Stormwater BMP Manual (BMP Manual), which includes proprietary BMPs approved under the process described in the BMP Manual. The BMPs or BMPs in series must achieve the following reductions based on the BMP Manual requirements for regulatory credits:

- At least 35% total nitrogen, and
- At least 35% total phosphorus reduction, and
- At least 85% total suspended solids (TSS) reduction.

The narrative must:

- Specifically state that project will adhere to the Stormwater BMP Manual design requirements for regulatory credits,
- Include the calculation of pollutant credit removal efficiency for BMPs or for BMPs in series
- State the percentage reductions that will be achieved,
- If implementing an item that the BMP Manual lists for “possible” credits, include a letter from the NCDEQ Stormwater Permitting Unit that indicates the criteria needed to make the credits “actual”, and
- If, due to existing site limitations only, BMPs are unable to meet the design requirements listed in the BMP Manual, include a letter from the NCDEQ Stormwater Program that indicates a reasonable expected percentage pollutant reduction.

Note: Stormwater conveyance alone is not eligible for points. Only that conveyance which is necessary to move stormwater to the BMP is eligible for points.

Line Item 1.H - Reclaimed water/usage or rainwater harvesting/usage (GREEN Project)
Wastewater: 15 points (CWSRF Only) Drinking Water: Not Applicable

To qualify for points under this Project Purpose, the project must produce and/or utilize reclaimed water, or be a rainwater collection and utilization project. This project is considered a GREEN Project that may be funded by a CWSRF loan with a one percent interest rate discount. A reclaimed water project may either be a new reclaimed water project, or the expansion of an existing reclaimed water system; however, the project must only consist of the equipment necessary to produce or provide reclaimed water (e.g., the project cannot include other WWTP upgrades or expansions, collection system facilities). The narrative must:

- Clearly describe the proposed project
- Include a map that shows the location of the existing and/or proposed infrastructure.

New Reclaimed Water Systems

If the project is for new reclaimed water treatment and/or distribution infrastructure (where there is currently no existing reclaimed water system), the Applicant must provide commitment letters from the future users that:

- Clearly describe the planned use of the reclaimed water, and
- State that the quality of the reclaimed water to be provided will meet their specific water quality needs.

If the proposed reclaimed water system will be serving residential users or in other situations where a commitment letter is not practicable, the Applicant must submit a copy of an existing ordinance that requires the use of reclaimed water upon its availability, or a commitment to approve such an ordinance with the timeframe for its approval.

Expansion of Existing Reclaimed Water Systems

The narrative must describe the operational status of the existing reclaimed water facilities and how the proposed project will connect to the existing system. The map must show the existing system and how the project will connect into the system. The Applicant must also provide a copy of the current reclaimed water permit and provide commitment letters from the future users that:

- Clearly describe the planned use of the reclaimed water, and
- State that the quality of the reclaimed water to be provided will meet their specific water quality needs.

Rainwater Harvesting/Utilization

A rainwater harvesting project involves collecting rainwater from impervious surfaces such as parking lots and rooftops and utilizing the collected rainwater for non-potable purposes such as irrigation or vehicle washing. Note that the project may have multiple collection locations. In the narrative:

- Describe where the project will be located and the surfaces from which the rainwater will be collected,
- Discuss how the rainwater will be collected and stored (e.g., collected via rooftop gutters and stored in an underground cistern),
- Describe how the rainwater will be used,
- State the name of the entity responsible for ensuring that the rainwater will be utilized for the uses it is intended, and
- Include a map that shows the location of the surface(s) and building(s) from which rainwater will be collected, and the location of the rainwater storage infrastructure.

Category 2 – Project Benefits

Applications earn Project Benefit points only when the Applicant identifies a direct connection between the project and the type of expected benefit.

Note: For Category 2 – Project Benefits, the maximum number of points that a project can earn is capped at 35 points, even if the project documents Project Benefits Line Items summing to more than 35 points.

Line Item 2.A & 2.A.1 – reserved for the CDBG Program

Line Item 2.B – Replacement, Merger or Repair / Managerial, Technical and Financial Issues
Wastewater: Not Applicable *Drinking Water: 20 points*

An application may earn points if the project provides *a specific public health benefit* to a public water supply system by replacement, repair, or merger. Eligible projects include only the following:

1. Replacing a dry well,
2. Addressing a contaminated drinking water source (including a well) by either replacing it or adding treatment. In this context, *contaminated* means that the water contains some substance or characteristic so that the existing treatment – operated properly – no longer can meet the MCLs listed in T15 A NCAC 18C .1500 *et seq.* Or,
3. Resolving managerial, technical, and financial issues.

To document these points for a project that replaces a dry well,

- Show that the project earns points under Line Item 1B for replacing a dry well.

For a dry well serving a public water supply system, provide the following:

- Drawdown tests that show the well's production has decreased by at least 50%;
- A letter from the DWR Regional Office stating that the well(s) have lost yield to the point that residents no longer have a reliable water source for drinking and bathing; and
- A map of the project area in a readable scale, with geographical coordinates, showing street names with the location of the well(s) clearly marked or colorized. Identify by name and PWSID No. the public water supply system that the dry well serves.

To document these points for a project that replaces or adds treatment to a contaminated source, do the following:

- Show that the project earns points for replacing or adding treatment to a contaminated source under Line Items 2.H or 2.I; and
- Identify by name and PWSID No. the public water supply system that the contaminated source serves.

A nonviable drinking water project that receives points under Line Item 1.A. will automatically receive these points for resolving managerial, technical, and financial issues.

Note: These points are for replacement, repair, or merger projects. Projects that increase a system's capacity to produce water or that install new (non-replacement) infrastructure can earn these points only to the extent the expansion is necessary to accomplish a system merger or to provide additional treatment to meet the MCL.

Line Item 2.C – Specific environmental benefits by replacement, repair, or merger; including replacing failing septic tanks.

Wastewater: 15 points *Drinking Water: Not Applicable*

An application may earn points if the proposed project provides *an environmental benefit* through the replacement, repair, or merger of a wastewater system. Eligible projects include *only* the following:

1. Sewer lines to serve homes with failing septic systems, or failing Division of Water Resources (DWR) permitted single-family residence discharges (NCG550000) and single-family residence spray / drip irrigation systems (Line Item 1.B); or
2. Repairing or replacing sewer lines responsible for reported sanitary sewer overflows or repairing or replacing equipment to resolve an upset, spill, or bypass at treatment works* that:
    (i) Reach bodies of water, or
    (ii) Back up into homes causing a public health problem, as documented by affidavit from home owner or tenant; or
3. Resolving managerial, technical, and financial issues.

*Treatment works: Defined here as public sewer collection and transmission system, pump stations, and wastewater treatment facilities.

The project narrative must clearly state which activity (e.g., failing septic tanks, DWR-permitted single-family residence discharge, single-family or public spray/drip irrigation system, replacement/repair of sewer lines and pump stations) in this Line Item is applicable and include the following:

1. For sewer lines to serve homes with failing septic/DWR single-family permitted systems:
    - A list of the addresses where septic systems are failing.
    - A project map that clearly shows the specific locations of:
        - Street names and house numbers of failed systems
        - New sewer lines
        - All systems to be connected to the public sewer system
    - A signed and sealed statement from a registered sanitarian or a licensed soil scientist or the County Health Department that the septic/irrigation systems in the project area have failed. County health department letters that advise "failures are *likely*" or "soils do not allow *new* septic systems" are not sufficient documentation of failing systems.
    - For DWR-permitted single-family discharge systems and spray/drip irrigation systems, list the permits in the watershed that the sewer will replace.
    - For projects that connect homes to public sewer, the majority of homes must be connected in order for the project to meet benefit requirements.
2. For replacing/repairing sewer lines, pump stations, or treatment equipment that are responsible for reported sanitary sewer overflows or bypasses:

- A project map that clearly shows the specific locations of:
    - Sewer lines, including manholes and pump stations, to be rehabilitated that directly connect to environmental/public health threat;
    - Location of the SSOs, and location of where the spills reached the body of water; or
    - Street names and house numbers where sewer has backed up into residences.
- Identify the frequency and cause of the spill and explain how the project will address the cause of the spill. (Note that isolated incidents related to severe natural conditions do not qualify for points.)
- Submit all Spill Reports, SSO Reports or Bypass Reports documenting that the spills/SSOs or Bypasses were reported to the Regional Office. Spill Reports, SSO Reports and Bypass Reports to the RO must be dated within five years of the application deadline.
- Submit all Notices of Violation (NOV) or Notices of Deficiency (NOD) which also document the environmental issues causes by the spills/bypasses/SSOs. All NOV/NODs must be dated within five years of the application deadline.
- Documentation of wastewater backups into residences within five years of the application deadline.

3. A nonviable wastewater project that receives points under Line Item 1.A will automatically receive these points for resolving managerial, technical & financial issues.

Note: These points are for replacement, repair, or merger projects. Projects that increase a system's capacity or that install new (non-replacement) infrastructure can earn these points only to the extent the expansion is necessary to accomplish a system merger.

Line Item 2.D – Promulgated But Not Yet Effective Regulation
Wastewater: 10 points *Drinking Water: 10 points*

To earn points under this line item, the project must fulfill the requirements of a regulation that has been promulgated but has not yet gone into effect.

The narrative must include the following:

- The regulatory citation and brief summary of the applicable regulation. List the date on which the regulation will go into effect.
- Documentation that the high potential for violation exists (such as NPDES permit effluent monitoring results or laboratory results). The narrative must clearly describe how this documentation shows a high probability of a violation; and
- A clear explanation of how the proposed project will lead to compliance with the regulation.

Example Narrative for Line Item 2.D

Water at the Town of Anytown's five wells exceeds the proposed 1ug/mL MCL for *Chemical X* in T15A NCAC 018C .15xx. This MCL was promulgated on January 1, 2016 and the first compliance deadline for Bin 1 systems such as Anytown is January 1, 2018. Anytown proposes to treat the water using carbon adsorption to meet the MCL. Included are the following items:

- A copy of the promulgated regulation,
- Laboratory results showing that the well produces water that exceeds the proposed MCL, and
- An EPA factsheet that:
    - States that carbon adsorption is the best practice to remove *Chemical X*; and
    - Indicates that water treated by carbon adsorption will generally meet the proposed MCL.

Line Item 2.E – Project Addresses enforcement documents

The Applicant may qualify for only one of the following sub-categories (Line Items 2.E.1 or 2.E.2):

Line Item 2.E.1 – Administrative Orders
Wastewater: 5 points *Drinking Water: 5 points*

To earn points under this line item, the project must address one of the following:

- An EPA Administrative Order (AO) for a local government Applicant located in a Tier 1 county, or
- An executed or pending Special Order by Consent (SOC), or
- A DEQ Administrative Order (AO).

To document these points, the narrative must include the following:

- A copy of the AO or SOC highlighting the action items that include the proposed project with a statement of whether the AO or SOC is executed or pending; for a pending AO or SOC, also include the following:
    - A copy of the SOC application
    - Regional Office contact and any correspondence with the Regional Office
    - A description of the violations that have occurred and the necessary construction to resolve the noncompliance (i.e., demonstrate that the proposed project would correct the violations)
    - A draft construction schedule if available and a clear discussion of any potential conflicts that may arise between the Project schedule and the draft schedule;
- A description of the violations that have occurred, and the necessary construction to resolve the noncompliance (i.e., demonstrate that the proposed project would correct the violations);
- A statement that the underlying violation has not already been addressed and that the project will address the violation;
- Additional supporting documentation necessary to prove the direct link between the project and satisfying the AO or SOC and fulfilling the regulation; and

- A clear discussion of any potential conflicts that may arise between the funding schedule and the AO or SOC compliance schedule.

Line Item 2.E.2 – Addresses a Notice of Violation or Notice of Deficiency
Wastewater: 3 points *Drinking Water: 3 points*

To earn points under this line item, the project must address a Notice of Violation (NOV), Sanitary Defect, Required Corrective Action, or Notice of Deficiency (NOD) that has not been completely resolved already. The narrative must include:

- A copy of the NOV, NOD, Assessment, or Corrective Action Plan and all responses to the issuing agency,
- A brief summary of the applicable regulation,
- A statement that the underlying violation, deficiency, sanitary defect, or required corrective action has not been addressed already and that the project will address the issue,
- A clear explanation of how the proposed project will lead to compliance with the regulation and how the proposed project will address specific regulatory requirements, and
- Additional supporting documentation necessary to prove the direct link between the project and fulfillment of the regulation.
- If the NOV or NOD is related to SSOs, provide copies of the SSOs and a map showing the location of the SSOS.

Note: For operations and maintenance violations, projects only score these NOV points if the project will eliminate the entity that received the NOV by merger or regionalization.

Example Narrative for Line Item 2.E.2 (Wastewater)

An Applicant's WWTP has received a Notice of Violation, which documents numerous fecal coliform exceedances above the NPDES permitted effluent limit. The Chlorine Contact Chamber is known to be too small for the current flows (especially peak flows), not allowing enough chlorine contact time. Additionally, the gas chlorine storage and feed system is old and not well regulated, and the plant ORC wants to switch to liquid chlorine for safety reasons. The proposed project will build a new larger chlorine contact chamber with a new liquid chlorine storage and feed system.

- A copy of the NOV and
- Documentation of the existing Chlorine Contact Chamber and old gas chlorine feed system.

Example Narrative for Line Item 2.E.2 (Drinking Water)

The Town of Anytown performed a Level 2 Assessment under the revised total coliform rule and determined that they need to repair several identified sanitary defects. Included are the following items:

- A copy of the Level 2 Assessment and
- A detailed description of the planned corrective actions to clearly explain how the issue that triggered the Level 2 Assessment requirement will be resolved.

Line Item 2.F – System Merger

Wastewater: 10 points *Drinking Water: 10 points*

An application may earn points if the project will merge systems. In this context, a *merger* can include either a physical consolidation of systems into a single regional system with one owner, or a merger of ownership and operation without a physical consolidation of systems. Decentralized systems can qualify under this Line Item.

To document these points, do the following:

- Earn priority under Line Item 1.A.
- Identify the systems. Clearly identify the systems by name and include the PWSID Number if applicable (drinking water systems). State that the Applicant is the owner of the system; and
- Describe the regionalization of the system and how it is managed; and
- Describe the type of merger. The Narrative must describe how the project will result in a merger and characterize the merger (for example, as a consolidation, operational or management merger).
    - Describe the current and proposed relationship between the systems.
    - Describe the agreements between the owner and other LGUs.
    - Submit an interlocal agreement between the systems, stating the intent to merge. An interlocal agreement conditional upon other work being completed prior to the merger is acceptable. A draft interlocal agreement may also be accepted.
    - Other documentation, such as a memorandum of understanding, will be considered on a case-by-case basis.

An applicant is eligible for these merger points up to two years after the date of merger. Such an applicant must provide documentation showing date of merger.

Note: Interconnectivity alone (e.g., providing only regionalized treatment) does not qualify for points under this Line Item.

Line Item 2.G – Documented Low Pressure

Wastewater: Not Applicable *Drinking Water: 10 points*

To earn points under this line item, the project must address documented low pressure within a system (pressures below the 20/30 psi described in T15A NCAC 18C .0901) within the last five years. The narrative must include the following:

- A discussion of the existing low pressure in the system,
- Documentation showing the low pressure identified within the last five years,
- Quantitatively demonstrate by calculations or modeling how the project will address the low pressures as demonstrated by calculations or modeling, and
- A map showing the locations of the pressure problems and of the project.

Follow the instructions in the *Factsheet: Documenting Low Pressure* to document the pressure problems to be addressed by the proposed project.

Line Items 2.H Project Addresses Contamination

The Applicant may qualify for only one of the following sub-categories (Line Items 2.H.1, 2.H.2 or 2.H.3):

Notes:
1. For contamination affecting an unregulated system: If the project is funded, and the contamination affects an unregulated system, the follow-up engineering report must formally compare the proposed project to other feasible alternatives to determine the most cost-effective solution to the problem. In many cases, point of use or other treatment will be more cost-effective than waterline extensions, and the project may lose funding.
2. The documentation must show that the existing treatment does not remove the compound well enough that the amount in the treated water is below the relevant limit.
3. To earn points for any one of these line items, the documentation must show that the project will improve water quality.

2.H.1 – Acutely Contaminated Water Supply System Source

Wastewater: Not Applicable *Drinking Water: 15 points acute*

To earn points under Line Item 2.H.1, the project must replace or provide new treatment to an acutely contaminated drinking water supply system. Such a drinking water supply system does not need to be regulated as a public water supply system. A project that earns priority points for acute contamination under Line Item 2.H.1 cannot also earn points for under Line Item 2.H.2 or 2.H.3.

- In this context, *contaminated* means that the water contains and once did not contain some substance or characteristic so that the existing treatment – operated properly – no longer can meet the primary MCLs listed in T15A NCAC 18C .1500 *et seq*. An example is a well with water that has changed to exceed an MCL or that now includes unregulated precursors (not regulated themselves) that require additional treatment to meet standards for disinfection byproducts. (Treated water that exceeds a secondary MCL does not qualify as contaminated for purposes of points.)
- In this context, *acutely contaminated* means that the issue required (or, for an unregulated water supply *would have* required) Tier 1 Public Notice under Table 1 of 40 CFR 141.202 (adopted by

reference into T15A NCAC 18C .1523). The list of covered contaminants currently includes the following:

- *E. coli*, enterococci or coliphage in certain groundwater samples,
- Nitrate, nitrite, or total nitrate and nitrite,
- Turbidity at the entry point of the distribution system for a surface water system (i.e., not for wellwater), and
- Certain other occurrences.

The narrative must describe the change in the quality of the source water and must include the following:

- A copy of the regulation;
- A description of the contaminated source:
  - The source type (e.g., well, surface water) and production capacity;
  - When and how the contamination was discovered; and
  - To the extent known, when, how and why the source became contaminated;
- A description as to how the project will solve the failure or contamination;
- A map showing the location of the project, the service area of the impacted community including the PWSID number, and the location of the failing or contaminated source;
- A description of the affected population, number of connections, and length and diameter of water line needed;
- Document acute contamination of a Public Water Supply System by providing a copy of the Public Notices that were issued and a statement that the project is necessary to address the contamination events;
- Unregulated water supplies may include individually-owned wells or a shared well serving a group of homes too small to be subject to the Safe Drinking Water Act (SDWA) (e.g. 15 connections or 25 people). If the contamination does not affect a public water supply system, then the application must include a sampling report that follows the instructions in the document: *Guidance for documenting public health priority points by sampling individually owned wells*.

Example Narrative for Line Item 2.H.1

Water at three of the Town of Anytown's five wells have had five *E. coli* MCL violations in the past three years. The other two wells have had one *E. coli* MCL violation each. The town was on a boil water notice twice in the last three years. Based on a camera survey of the wells, the town believes the well construction allows water from the surficial aquifer to enter the well and that future boil-water notices are inevitable as long as the town continues to use these wells. Anytown proposes to construct an interconnection with the City of Metropolis and abandon all the wells. Included is the following:

- A copy of the regulation.
- Laboratory results for the three wells.
- Copies of each MCL violation over the past three years.
- A map showing the proposed route of the interconnection.
- An interlocal agreement in which the City of Metropolis commits to provide sufficient water to Anytown.

2.H.2 – Other than Acutely Contaminated Water Supply System Source
Wastewater: Not Applicable *Drinking Water: 10 points*

To earn points under Line Item 2H.2, the project must replace or provide new treatment to a contaminated (but not acutely contaminated) drinking water supply system. Such a drinking water supply system does not need to be regulated as a public water supply system. A project that earns priority points for other than acute contamination under Line Item 2.H.2 cannot also earn points under Line Item 2.H.1 or 2.H.3

- In this context, *contaminated* means that the water contains and once did not contain some substance or characteristic so that the existing treatment – operated properly – no longer can meet the MCLs listed in T15A NCAC 18C .1500 *et seq*. An example is a well with water that has changed to exceed an MCL or that now includes unregulated precursors (not regulated themselves) that require additional treatment to meet standards for disinfection byproducts.

The narrative must describe the change in the quality of the source water and must include the following:

- A copy of the regulation;
- A description of the contaminated source:
  - The source type (e.g., well, surface water) and production capacity;
  - When and how the contamination was discovered; and
  - To the extent known, when, how and why the source became contaminated;
- A description as to how the project will solve the failure or contamination;
- A map showing the location of the project, the service area of the impacted community including the PWSID number, and the location of the failing or contaminated source;
- A description of the affected population, number of connections, and length and diameter of water line needed;
- Document other-than-acute contamination of public water supply system by providing copies of compliance sampling reports submitted to the Public Water Supply Section of the Division of Water Resources that show the contamination and a statement that the project is necessary to address the contamination events
- Unregulated water supplies may include individually-owned wells or a shared well serving a group of homes too small to be subject to the Safe Drinking Water Act (SDWA) (e.g. 15 connections or 25

people). If the contamination does not affect a public water supply system, then the application must include a sampling report that follows the instructions in the document: *Guidance for documenting public health priority points by sampling individually owned wells*.

2.H.3 – Contamination with an Emerging Compound without a MCL but above a Health Advisory Level

Wastewater: Not Applicable *Drinking Water: 7 points*

To earn points under Line Item 2.H.3, the project must replace or provide new treatment to a drinking water supply system that produces water that exceeds a drinking water health advisory level for an emerging compound that has no MCL. Such a drinking water system does not need to be regulated as a public water supply system. A project that earns priority points for emerging compounds under Line Item 2.H.3 cannot also earn points under Line Item 2.H.1 or 2.H.2.

- In this context, *drinking water health advisory level* means one of the following:
  1. The 140 ng/L Provisional Health Goal for GenX established by the DHHS[1], [2] and recommended by the SAB[3]; and
  2. The EPA's **2018 Edition of the Drinking Water Standards and Health Advisories Tables**, publication number EPA 822F18001[4]. Note that the RfD (Reference Dose) is not a health advisory level.

The narrative must describe the change in the quality of the source water and must include the following:

- A copy of the regulation;
- A description of the contaminated source:
  - The source type (e.g., well, surface water) and production capacity;
  - When and how the contamination was discovered; and
  - To the extent known, when, how and why the source became contaminated;
- A description as to how the project will solve the failure or contamination;
- A map showing the location of the project, the service area of the impacted community including the PWSID number, and the location of the failing or contaminated source;
- A description of the affected population, number of connections, and length and diameter of water line needed;
- Document the presence of an emerging compound by providing copies of the laboratory test results showing that the emerging compound in the finished water exceeds the health advisory level.
- Unregulated water supplies may include individually-owned wells or a shared well serving a group of homes too small to be subject to the Safe Drinking Water Act (SDWA) (e.g. 15 connections or 25

[1] *DHHS Drinking Water Advisory Decision Matrix* https://files.nc.gov/ncdeq/GenX/SAB/DHHS%20SAB%20information%20for%2012-4-17%20meeting.pdf

[2] And *Questions and Answers Regarding North Carolina Department of Health and Human Services Updated Risk Assessment for GenX (Perfluoro-2-propoxypropanoic acid)* in https://ncdenr.s3.amazonaws.com/s3fs-public/GenX/NC%20DHHS%20Risk%20Assessment%20FAQ%20Final%20Clean%20071417%20PM.pdf

[3] *Secretaries' Science Advisory Board Review of the North Carolina Drinking Water Provisional Health Goal for GenX* in https://files.nc.gov/ncdeq/Energy%20Mineral%20and%20Land%20Resources/DEMLR/SAB-GenX-Report-FINAL-Appendices-10-30-2018.pdf

[4] available at https://www.epa.gov/dwstandardsregulations/drinking-water-contaminant-human-health-effects-information

people). If the contamination does not affect a public water supply system, then the application must include a sampling report that follows the instructions in the document: *Guidance for documenting public health priority points by sampling individually owned wells*.

Line Item 2.I – Additional Treatment

Wastewater: 3 points *Drinking Water: 3 points*

To earn points under this line item there must be existing treatment and the project must install an additional or upgraded unit that provides additional treatment that improves the quality of the wastewater treatment plant effluent or the drinking water quality. Note that treatment needed to meet a regulatory standard might qualify for additional points under Line Item 2.C, 2D, 2.E.1, 2.E.2 (AO/SOC/NOV/NOD). In-tank aeration is considered treatment. Adding automated shut-off for operational malfunction (such as automated well shut-off for chlorine failure) does not qualify as improving treated effluent or water quality. A new unit treatment operation must provide better quality effluent or water in everyday circumstances, not just a failsafe. A project that replaces old or malfunctioning equipment with similar equipment does not qualify as additional treatment simply because the new equipment will operate more effectively than the older equipment currently does. The new equipment must provide an improvement over how the equipment being replaced was designed to operate when it was new, and the narrative must explain how the new equipment provides additional treatment or improved effluent quality. For wastewater expansion projects to receive these points, the additional treatment must result in an overall decreased pollutant load to the receiving waterbody at the future permitted capacity, not just a decrease in effluent concentration. Calculations must be provided to show the decreased pollutant load.

The narrative must include the following:

- A discussion of the existing and proposed water or liquid wastewater treatment trains;
- A discussion of the proposed additional treatment unit(s); and
- A discussion of how the proposed treatment will improve the quality of water.
- For wastewater expansion, a discussion of pollutant loading to receiving stream with and without the additional treatment.

Example Narrative for Line Item 2.I (Wastewater)

The liquid treatment train of a town's WWTP currently has two small clarifiers, which are undersized for the current average flows, and especially peak flows. The NPDES permit TSS monthly limit of 30 mg/l is close to being exceeded (but not quite), and the plant ORC is worried that peak flows will cause TSS effluent violations.

- The Town proposes to install a new third clarifier along with a new clarifier flow splitter box. The addition of the third clarifier will greatly reduce clarifier solids loading rate, and should lead to lower TSS in the effluent.

Example Narrative for Line Item 2.I (Drinking Water)

The Town of Anytown currently provides only disinfection at all five of its wells. The newest well (Well #7) provides large quantities of water with approximately 0.20 mg/l iron (below the state-regulated level for iron of 0.30 mg/l). [T15A NCAC 18C .1511] However, after commissioning Well #7, the Town began to receive complaints about laundry and fixture staining.

The Town proposes to install a polyphosphate chemical feed system at Well #7 to sequester iron and improve the aesthetic acceptability of the water.

Line Item 2.J – Address Water Loss

Wastewater: Not Applicable *Drinking Water: 3 points*

An application may earn points if the project will address water loss exceeding 30% in the system. Such a project would include the following examples:

- Altitude valve. A project that installs an altitude valve to prevent overflowing of a tank that currently overflows frequently and is believed to be the source of a substantial fraction of the system's water loss.
- Waterline replacement. A project that replaces a section of line that has experienced frequent breaks and is believed to be the source of a substantial fraction of the system's water loss.

To document these points, provide the following:

- Water loss. Both of the following two items must document that the system's water loss exceeds 30%:
  - The most recent water audit (only one year required), which must meet the requirements discussed under Line Item 3.E (*Water Loss Reduction Plan*), and
  - The water loss in the system's most recent complete Local Water Supply Plan. For more information on LWSPs see http://www.ncwater.org/Water_Supply_Planning/Local_Water_Supply_Plan/ .
- That the unit is responsible. The narrative must explain why it is believed that the unit to be modified is responsible for the excessive water loss. For example:
  - For a project to add an altitude valve, estimate the losses from tank overflows.
  - For a project to replace a waterline, estimate the water loss from leaks.
  - Show all calculations and assumptions.
- That the project will reduce water loss from the unit. The narrative must credibly explain how the proposed project will reduce water loss. In particular, the narrative must estimate the post-project system-wide water loss.

Example Narrative for Line Item 2.J

The Town of Folger has a 12-inch waterline running down Elm Street that has had three breaks in a ten-block area over the last two years. The line is 60 years old and has small cracks that leak continuously. The last break caused the town to lose over one million gallons of water in one month and caused a sinkhole in the street. Folger believes that this line causes much of the high water loss because water losses in Folger's water system were less than 20% before the first Elm Street waterline failure. Included in this application are the following:

- A copy of the most three most recent water audits showing the following water losses:

  2012-2013 18%

  2013-2014 28% (the first break occurred in January)

  2014-2015 34%

- A copy of the 2014 Local Water Supply Plan that shows 32% water loss for calendar year 2014. The LWSP and water audit agree with each other reasonably well (considering the different time periods) and agree that water loss exceeds 30%

By repairing The Elm Street waterline, Folger estimates it will save one million gallons per month. This water loss was estimated by assuming water loss drops from 32% to 22% (which is higher than the previous average of less than 15%).

Line Item 2.K – Water System Interconnection

The Applicant may qualify for only one of the following sub-categories (Line Items 2.K.1, 2.K.2, or 2.K.3) for an interconnection between two separate systems. A project that merges systems or that connects pressure zones of the same system (as defined by PWSID) does not qualify. To earn points under these line items, the proposed project itself must accomplish the interconnection. A system does not earn these points simply for having an interconnection or for facilitating future work to create an interconnection that is not completed by the proposed project.

Line Item 2.K.1 – Interconnection between systems not previously connected

Wastewater: Not Applicable *Drinking Water: 10 points*

To earn points under this line item, the project must create a new interconnection between two or more public water supply systems not previously interconnected. The narrative must:

- Identify by name and PWSID No. the systems that will be interconnected;
- Discuss the demands and capacities of the systems that will be interconnected;
- Discuss the capacity of any existing interconnection and the proposed interconnection;
- Include a map showing the location of the two systems that will interconnect, including the project area, the route of any existing interconnection, and the route of the proposed interconnection; and
- Include copies of draft or final agreements for the interconnection.

Example Narrative for Line Item 2.K.1

The City of Somewhere (PWSID No. NC 01234567) operates a 20 MGD surface water treatment plant. Somewhere's average daily demand is 7 MGD and its maximum daily demand is 14 MGD.

The Town of Anytown (PWSID No. NC 2345678) operates five wells yielding a total of 1.0 MGD. Anytown's average daily demand is 0.4 MGD and its maximum daily demand is 0.9 MGD.

The City of Somewhere and the Town of Anytown are not currently interconnected. The City of Somewhere agreed to create a new interconnection with the Town of Anytown. The draft interlocal agreement (included) establishes that upon completion of the project:

1. The City of Somewhere agrees to sell up to 2 MGD to the Town of Anytown.
2. The Town of Anytown agrees to pay for a minimum use of 0.05 MGD.

A map of the proposed 8-inch interconnection is included.

Line Item 2.K.2 – Additional or Larger Interconnection meets Public Health Needs
Wastewater: Not Applicable *Drinking Water: 10 points*

To earn points under this line item, the project must create (or increase the capacity of) an interconnection between two or more public water supply systems that are already previously interconnected such that the first system can fully meet the public health needs of the second system. It is not necessary to show that each system can meet the public health needs of the other system, only that one system's public health needs can be met.

In this context, *"Public Health Needs"* means water sufficient to satisfy the residents' cooking, cleaning and hygiene needs. If the supplier cannot meet the Average Daily Demand of the recipient, then the Applicant must develop a system-specific estimate of the demand reduction that the recipient can impose by e.g., emergency restrictions on water use.

The narrative must do the following:

- Identify by name and PWSID No. the systems that will be interconnected;
- Discuss the demands and capacities of the systems that will be interconnected;
- Document the following:
  - That currently, one system cannot satisfy the public health needs of the second system using all available interconnections; and
  - That the proposed project will allow that one system to meet the public health needs of the second system. It is not needed to show that each system can meet the public health needs of the other system;
- Discuss the capacity of any existing interconnection and the proposed interconnection;
- Include a map showing the location of the two systems that will interconnect including the project area, the route of any existing interconnection and the route of the proposed interconnection; and
- Include copies of draft or final agreements for the interconnection.

Example Narrative for Line Item 2.K.2

The City of Somewhere (PWSID No. NC 01234567) operates a 20 MGD surface water treatment plant. Somewhere's average daily demand is 7 MGD, and its maximum daily demand is 14 MGD.

The Town of Anytown (PWSID No. NC 2345678) operates a 1.0 MGD surface water treatment plant. Anytown's average daily demand is 0.4 MGD, and its maximum daily demand is 0.9 MGD.

The current interconnection between Somewhere and Anytown has a capacity of only 0.2 MGD, which does not meet the public health needs of Anytown. Anytown experiences high levels of siltation at its raw water intake station during intense rain storms. The included draft "Interlocal Agreement for Emergency Purposes" establishes that the Somewhere will sell up to 2.0 MGD to Anytown as provided in the Agreement (thus meeting the public health needs of Anytown). A map of the proposed 12-inch interconnection is included.

Line Item 2.K.3 – Any other type of Interconnection

Wastewater: Not Applicable *Drinking Water: 5 points*

To earn points under this line item, the project must create any other type of interconnection between systems. The narrative must do the following:

- Identify by name and PWSID No. the systems that will be interconnected;
- Discuss the demands and capacities of the systems that will be interconnected;
- Discuss the capacity of the existing interconnection and the proposed interconnection;
- Include a map showing the location of the two systems that will interconnect, including the project area, the route of any existing interconnection, and the route of the proposed interconnection; and
- Include copies of draft or final agreements for the interconnection.

Example Narrative for Line Item 2.K.3

The City of Somewhere (PWSID No. 0123456) operates a 20 MGD surface water treatment plant. Somewhere's average daily demand is 7 MGD and its maximum daily demand is 14 MGD.

The Town of Anytown (PWSID No. 2345678) currently purchases up to 2 MGD (see included final interlocal agreement) from the City of Somewhere through the 40-year old, 8-inch Northside Interconnection. Anytown's average daily demand is 0.9 MGD and its maximum daily demand is 2 MGD.

Anytown proposes to build a new 8-inch Southside Interconnection to provide a redundant supply. Either interconnection (working alone) will be capable of meeting Anytown's maximum daily demand of 2 MGD. The proposed project has the potential to increase Anytown's system capacity by removing the 2 MGD bottleneck of the existing Northside Interconnection. But the proposed project will not change the City of Somewhere's capacity. A map of the proposed 8-inch interconnection is included.

Note that this project does not earn points under 2.L.2 because the existing interconnection can already meet the public health needs of Anytown.

Line Item 2.L – reserved for the CDBG Program

Line Item 2.M – reserved for the CDBG Program

Line Item 2.N – Redundancy to Critical Treatment, Delivery, or Collection Systems

The application can earn priority points for providing redundancy or resiliency for critical treatment and/or transmission/distribution and/or collection system functions. The application can earn priority points for only one line item under 2.N.

Document these priority points by providing the specific documentation discussed under Line Items 2.N.1-2.N.7:

Line Item 2.N.1 – Relocates Infrastructure from inside the 100-year Floodplain to outside the 500-year floodplain
Wastewater: 8 points *Drinking Water: 8 points*

Line Item 2.N.2 – Relocates Infrastructure out of the 100-year Floodplain
Wastewater: 5 points *Drinking Water: 5 points*

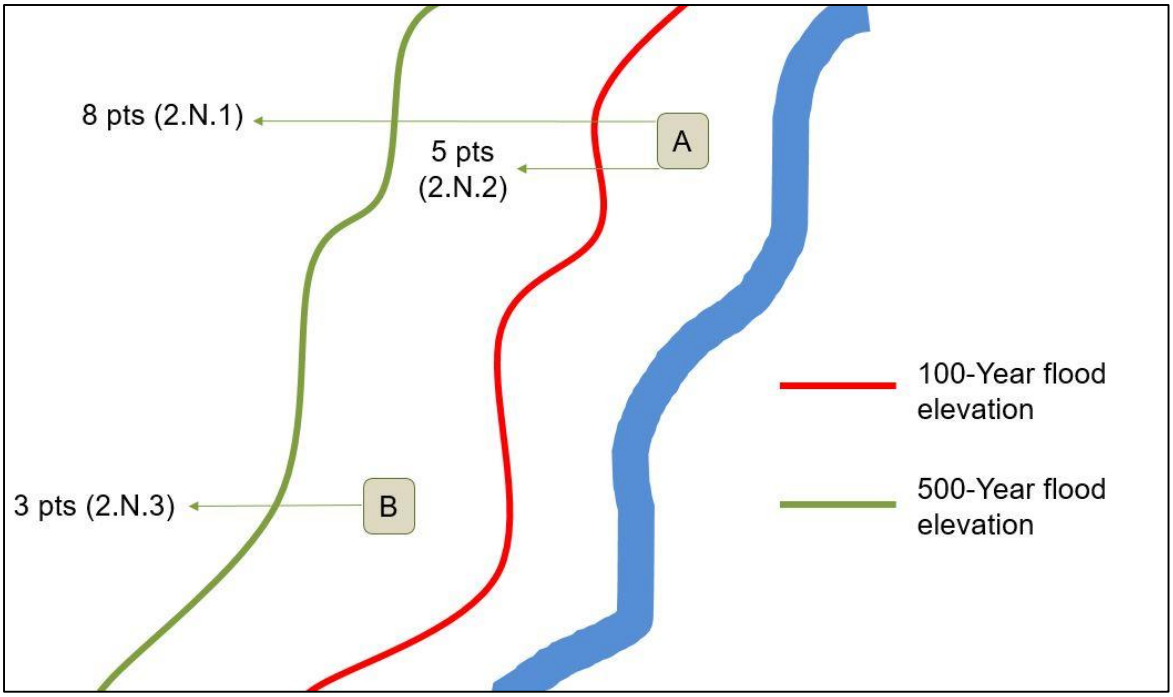
Line Item 2.N.3 – Relocates Infrastructure from between the 100-year Floodplain and the 500-year Floodplain to outside 500-year Floodplain
Wastewater: 3 points *Drinking Water: 3 points*

The application can earn points for relocating infrastructure that lies in a floodplain into a lower risk area, which reduces the infrastructure's susceptibility to damage by flooding. The number of priority points depends on which floodplain area boundaries the relocation crosses. Document these priority points in as follows:

- Describe in the Narrative the infrastructure that is being relocated outside of the 100-year or 500-year floodplain into a lower risk area;
- Provide map(s) that clearly show where the existing and relocated infrastructure lie in relation to the floodplains:
    - The map must clearly show the location of both the existing and proposed infrastructure;
    - The map must clearly show the flood plain boundaries across which the infrastructure will be relocated; and
    - The map must clearly show that the existing infrastructure lies within a higher-hazard flood plain than the proposed infrastructure;

Provided map(s) must use FRIS or FEMA as the source of the data layer or flood elevations used (https://fris.nc.gov). The provided map(s) must include a legend explaining all symbols appearing on the map, the north arrow, and the scale; and the map(s) must clearly indicate which side of the boundary line is the flood plain by showing the water body or using shading or other marking.

The following graphic illustrates the differences in Line Items 2.N.1, 2.N.2, and 2.N.3.



Note: The Division will accept the 100-year Floodplain (1% Annual Chance Floodplain) and 500-year Floodplain (0.2% Annual Chance Floodplain) as designated on the North Carolina Flood Risk Information Center available at https://fris.nc.gov. The 100-year Floodplain is also designated as the Special Flood Hazard Area (SFHA). SFHA are defined as the area that will be inundated by the flood event having a 1-percent chance of being equaled or exceeded in any given year. The 1-percent annual chance flood is also referred to as the base flood or 100-year flood. SFHAs are labeled as Zone A, Zone AO, Zone AH, Zones A1-A30, Zone AE, Zone A99, Zone AR, Zone AR/AE, Zone AR/AO, Zone AR/A1-A30, Zone AR/A, Zone V, Zone VE, and Zones V1-V30. The 500-year Floodplain is also referred to as the 0.2% Annual Chance Floodplain, the "area of minimal flood hazard", Zone C, or Zone X. The 100-Year Floodplain and 500-year Floodplain must be clearly labeled on the map, and the source of the floodplain data must be provided.

The Division may accept other floodplains on a case-by-case basis only if no NFIP base elevation exists for the area. To use an alternate map, applicants must obtain the Division's approval of the map prior to the application submittal deadline.

Example Narratives for Line Item 2.N.1

Narrative that IS NOT sufficient: The project will move the existing Flat Creek Pump Station from its current location, which flooded during Hurricane Michael, to a new site two blocks away that did not flood during Hurricane Michael. **(Not sufficient because there is no documentation included showing the current location is located within the 100-year floodplain and that the proposed new location is outside of that floodplain.)**

Narrative that IS sufficient: The project will move the existing Flat Creek Pump Station from Location1 (-78.747620, 35.9002375 degrees), which is within the 100-year floodplain to Location2 (-78.748835, 35.902638 degrees), which is outside of the 500-year floodplain. The attached map shows that Location1 is in the 100-year floodplain and that Location2 is outside of the 500-year floodplain. The maps were printed from https://fris.nc.gov.

Line Item 2.N.4 – Fortify/elevate Infrastructure within 100-year floodplain (without relocating it out of floodplain)

Wastewater: 4 points *Drinking Water: 4 points*

The application can earn points for fortifying or elevating infrastructure within the 100-year floodplain without the need to relocate it out of the floodplain.

1. Fortifying includes replacing equipment with new equipment not subject to being damaged by submersion (such as submersible pumps).
2. Fortifying also includes physical barriers (such as levies or floodgates);
3. Elevating typically includes installing electrical equipment on platforms.

Physical barriers and elevating require a minimum of two feet of freeboard above the base flood elevation (BFE). Document these priority points in the narrative as follows:

- Determine the BFE from the North Carolina Flood Risk Information System available at https://fris.nc.gov;
- Provide map(s) that clearly show where the infrastructure lies in relation to the floodplain and how the BFE was determined:
    - The map must clearly show the location of the infrastructure;
    - The map must clearly show the BFEs at the location of the infrastructure;
    - Provided map(s) must use FRIS or FEMA as the source of the data layer or flood elevations used (https://fris.nc.gov)
    - The provided maps must include a legend explaining all symbols appearing on the map, the north arrow, and the scale;
- Describe the vulnerable components of the existing infrastructure that are below the BFE established above;
- Describe how the project will elevate/protect those vulnerable components of the existing infrastructure.
- Describe how the project will achieve the required 2 feet of freeboard (or higher freeboard as required for local permitting) above the BFE that the elevated infrastructure or the barriers will have.
- Alternatively, describe how the vulnerable infrastructure is replaced by infrastructure that is not vulnerable to flooding, such as submersible wet-pit/dry-pit pumps.

Example Narratives for Line Item 2.N.4

Narrative that IS NOT sufficient: Improvements will be made at the existing Flat Creek Pump Station to replace the electronic control system with a new system constructed on a 10-foot tall platform. **(Not sufficient because the narrative does not demonstrate that the new infrastructure will have at least 2 feet of freeboard above the base flood elevation.)**

Narrative that IS sufficient: The control structures and pump motors at the existing Flat Creek Pump Station sit at between 387 and 393 feet MSL. The attached maps printed from https://fris.nc.gov show that the base flood elevation is 395 feet. The project will protect the infrastructure as follows:

- The replacement electronic control system will be constructed on a 10-foot tall platform, so that the lowest vulnerable control component will be at 397 feet (two feet above the base flood elevation).
- The Westerly Pumps are vertical turbine line-shaft pumps with submerged pump bodies. However, the drive motors are mounted below 393 feet MSL. These pumps will be hardened by installing longer line shafts and re-mounting the drive motors at 397 feet MSL (two feet above the base flood elevation).
- The Easterly pumps will be replaced by submersible pumps that are not subject to damage by flooding. The control panels will be elevated to 397 MSL for protection.

Narrative that IS NOT sufficient: Hurricane Zebra destroyed 100 homes on the East side of town, reducing the population by 300. This project replaces sewers on the West side of town (project not related to the area with reduced population).

Narrative that IS sufficient: Hurricane Zebra destroyed 100 homes on the East side of town, reducing the population by 300. There are now four sections of 15-inch gravity sewer on that East side of town that serve no more than three homes each, resulting in wet-weather flows more than 10x dry-weather flows. In addition, the flow from the remaining houses is not sufficient to scour the 15-inch sewer. This project replaces those 15-inch sewers with 8-inch to meet the minimum allowable size in MDCs.

Line Item 2.N.5 – Assure Continuous Operation of Infrastructure located within the 100-year floodplain (without relocating it out of floodplain)

Wastewater: 4 points *Drinking Water: 4 points*

The application can earn points for improving the system's ability to assure continued operation during flood events. Document these priority points in the narrative by describing how the project improves the system's ability to assure continued operation of infrastructure located within the 100-year floodplain during flood events. Provide map(s) that clearly show where the infrastructure lies in relation to the floodplain:

- The map must clearly show the location of the infrastructure;
- Provided map(s) must use FRIS or FEMA as the source of the data layer or flood elevations used (https://fris.nc.gov)
- The provided maps must include a legend explaining all symbols appearing on the map, the north arrow, and the scale;

Line Item 2.N.6 – Downsize Infrastructure Related to Buyouts

Wastewater: 4 points *Drinking Water: 4 points*

The application can earn points for projects that reduce the size of infrastructure as a result of a buyout or other abrupt loss of flow or population. To document these points in the narrative, explain how and why the population declined and how that smaller population is better served by reduced-size infrastructure.

Example Narratives for Line Item 2.N.6

Narrative that IS NOT sufficient: Hurricane Zebra destroyed 100 homes on the East side of town, reducing the population by 300. This project replaces sewers on the West side of town (project not related to the area with reduced population).

Narrative that IS sufficient: Hurricane Zebra destroyed 100 homes on the East side of town, reducing the population by 300. There are now four sections of 15-inch gravity sewer on that East side of town that serve no more than three homes each, resulting in wet-weather flows more than 10x dry-weather flows. In addition, the flow from the remaining houses is not sufficient to scour the 15-inch sewer. This project replaces those 15-inch sewers with 8-inch to meet the minimum allowable size in MDCs.

Line Item 2.N.7 – Project provides redundancy/resiliency for critical treatment and/or transmission/distribution system functions including backup electrical power source

Wastewater: 3 points *Drinking Water: 3 points*

For another resilient item such as a redundancy or emergency power source:

- Include the emergency power source, redundant or resilient items in the application's project description; and
- In the narrative, explain how the emergency power source, redundant or resilient items provide redundancy and/or resiliency.

Note: Replacing or repairing an existing generator or redundant unit does not earn these points. The redundancy or resiliency must be new or increased.

Retrofitting existing equipment with backup power qualifies for points; new equipment that includes backup power does not.

By policy, looping does not earn redundancy points.

Example Narratives for Line Item 2.N.7

Narrative that is NOT sufficient: The new waterline loops will allow water to flow from either direction. **(Not sufficient because by *policy, looping does not earn redundancy points.*)**

Narrative that is NOT sufficient: The project will replace the existing broken and unrepairable 25,000 kW generator. ***(Not sufficient because it doesn't add redundancy; it restores redundancy.)***

Narrative that IS sufficient: The project description contains "Rehabilitate existing WTP without expanding capacity including the following: … Install redundant third filter to enable the plant to operate at full capacity with any single filter out of service…" For this particular line item, the narrative would be "The redundant third filter will enable the plant to operate at full capacity with any single filter out of service and will not increase capacity."

Narrative that IS sufficient: The project description contains "Rehabilitate existing WTP without expanding capacity including the following: … provide backup power to the high service pumps…" For this particular line item, the narrative would be "The plant currently has emergency power for the treatment train and necessary controls. The plant hydraulics allow water to flow through the plant and into the clearwell. Without the ability to pump water from the clearwell, however the plant cannot provide additional water to the town once the power fails. The project will provide backup power to the high service pumps enabling the plant to provide water to the town during an extended outage."

Narrative that IS sufficient: Rehabilitate existing WTP without expanding capacity, including installation of redundant third filter to enable the plant to operate at full capacity with any single filter out of service.

Narrative that IS sufficient: The project will expand the plant from 10 to 12 MGD and increase the backup power available. The plant currently has emergency power for the treatment train and necessary controls. The plant hydraulics allow water to flow through the plant and into the clearwell. Without the ability to pump water from the clearwell, however, the plant cannot provide additional water to the town once the power fails. The expanded generators will not only provide backup power sufficient to operate the expanded plant, but they will retrofit backup power to the existing high service pumps enabling the plant to provide water to the town during an extended outage.

Line Item 2.O – Benefit subwatersheds that are impaired as noted on the most recent version of the Integrated Report

Wastewater: 20 points *Drinking Water: Not Applicable*

Projects qualify for points under this line item only when the Applicant identifies a **direct connection** between the benefit of the project and benefit to an impaired water. The narrative must:

- Provide the stream name, basin, the 8-digit HUC for the subbasin, and the Assessment Unit;
- Provide a discussion of the impairment, a reference for the impairment and discussion of how the project will directly benefit the impairment. The discussion must relate the need and benefit of the project to the cause(s) of the impairment; and
- Provide a map(s) indicating the project location and stream location with impaired segment highlighted, as well as sufficient labeled landmarks such as roads, streams, political boundaries, etc. to identify the location of the project.
- For projects claiming points due to impacts from SSOs – include copies of DWR SSO reports identifying the spill that reached applicable impaired waters; show the location of the SSOs on the map.

Example Narratives for Line Item 2.O

Narrative that is NOT sufficient: The collection system rehabilitation project will address collection system SSOs that have occurred and impacted Trout Creek. ***(Not sufficient because no direct link is identified between impairment and the SSOs and no map is provided showing the relationship between the SSOs and Trout Creek.)***

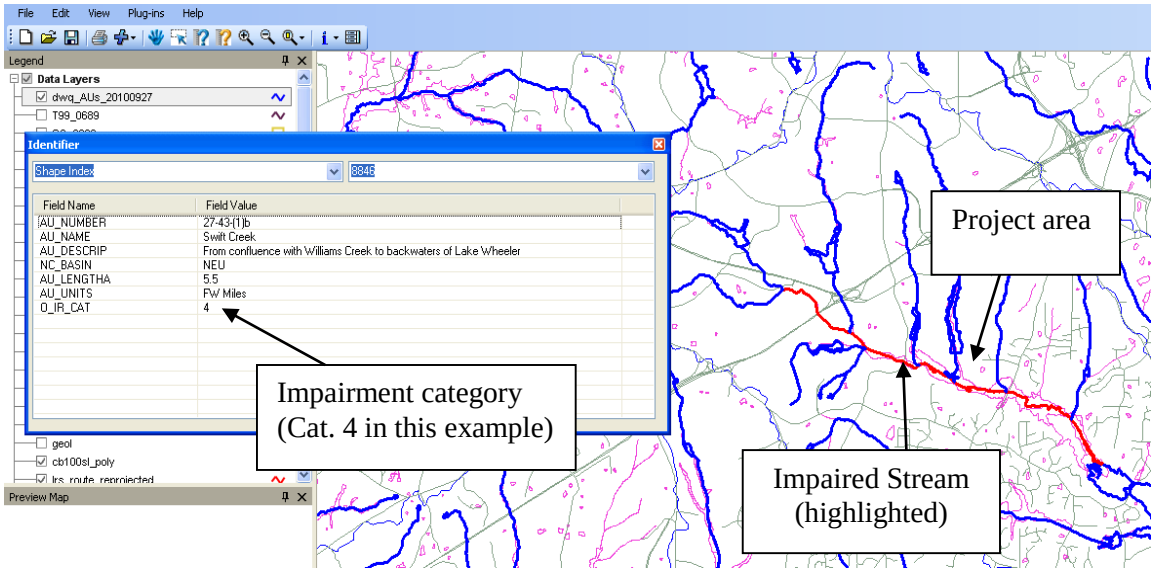
Narrative that IS sufficient: The proposed collection system rehabilitation project will benefit the waters of Trout Creek, which are impaired for fecal coliform. The Town has had several SSOs that have reached Trout Creek from this area of the system. A map and DWR SSO reports are included, showing the relationship between the SSOs and the impaired stream segment.

Resource #1: The Integrated Report may be found at this website:

https://deq.nc.gov/about/divisions/water-resources/planning/modeling-assessment/water-quality-data-assessment/integrated-report-files

Resource #2: Basinwide Assessment Reports may also be helpful in describing the impairment issues and how the project will directly improve or address the impairment; these reports may be found at https://deq.nc.gov/about/divisions/water-resources/planning/basin-planning. If used, please cite the report name, date, and page number.

Resource #3: GIS layers are available at http://datagateway.nrcs.usda.gov/. In addition, the DWR's Planning Section has GIS layers for impaired streams at http://deq.nc.gov/about/divisions/water-resources/planning/basin-planning/maps. This stream layer includes the stream name and impairment category (whether impaired or not). See the figure below.



Example of GIS layer for stream impairment

Line Item 2.P – Benefits waters classified as HQW, ORW, Tr, SA, WS-I, WS-II, WS-III* or WS-IV* (* these classifications must be covered by an approved Source Water Protection Plan to qualify)

Wastewater: 10 points *Drinking Water: Not Applicable*

Projects qualify for points under this line item only when the Applicant identifies a **direct connection** between the benefit of the project and benefit to special waters in the state which are identified as HQW, ORW, Tr, SA, WS-I, WS-II, WS-III, and WS-IV). The narrative must:

- Provide the river basin name, stream name and index number along with the stream classification;
- Provide the watershed classification which must be consistent with any subwatershed or Basinwide Water Quality Plan mentioned for previous line items;
- Provide a discussion of how the project will directly (i.e., not incidentally) benefit the waters with these classifications; and
- Provide mapping that identifies the project location and special waters location.
- Include – for projects claiming points due to impacts from SSOs – copies of DWR SSO reports identifying the spill that reached applicable special waters; also show the location of the SSOs on the map.

Note: Points claimed for WS-III or WS-IV waters must include a letter from the Public Water Supply Section within the Division of Water Resources confirming that the subject area is covered by an approved Source Water Protection Plan. Please contact Rebecca Sadosky at (919) 707-9096 or at rebecca.sadosky@ncdenr.gov to obtain this information.

Example Narratives for Line Item 2.P

Narrative that is NOT sufficient: The proposed sewer expansion project will benefit the Trout waters of nearby Trout Creek. ***(Not sufficient because no direct link is identified between the project and how it will benefit Trout Creek. Additionally, no mapping is provided.)***

Narrative that IS sufficient: The proposed sewer expansion project will benefit the Trout Waters of Trout Creek by replacing aged infrastructure that has caused SSOs to flow directly into Trout Creek. A map showing the relationship of the SSOs and proposed projects to Trout Creek is included. Additionally, DWR SSO reports are included.

Resource: To determine the watershed classification, the DWR Planning Section provides classification lists and GIS layers to locate and document the location of special waters and their respective classifications at http://deq.nc.gov/about/divisions/water-resources/planning/basin-planning/maps.

Line Item 2.Q - Elimination of an NPDES Permit

Wastewater: 3 points *Drinking Water: Not Applicable*

A project qualifies for points under this line item when the project includes the elimination of a NPDES-permitted facility. The NPDES-permitted facility must be an actively-operated WWTP, and not a non-functional WWTP with an active NPDES permit. The project must include removal of the discharge or outfall. A project that allows for removal of the discharge in the future does not qualify for points. Treatment at the receiving facility must be equal to or better than treatment at the facility to be eliminated. The application must include the following:

- A copy of the NPDES permit for the WWTP being eliminated;
- A copy of NPDES permit for the WWTP that will accept the flow or Interlocal agreement showing limits; and
- A description of the current and projected future sewer flows at the WWTP to be eliminated, and the current and projected future sewer flows at the accepting WWTP. Document that the accepting WWTP has sufficient capacity to accept the flow from the eliminated WWTP and provides a level of treatment as good as or better than the treatment at the facility to be eliminated.
- If a system merger is involved, describe the regionalization of the system and how it is managed.
- State the local government units (LGU) that are involved. If a private system will be eliminated, provide an agreement showing that private system will be eliminated.
- Supporting documentation such as interlocal agreements that show the responsibilities of each system involved.

Line Item 2.R - Achieve at least 20% reduction in energy use (GREEN Project)
Wastewater: 5 points (CWSRF Only) Drinking Water: Not Applicable

If the primary purpose of the project at the WWTP is to achieve at least a 20% reduction in energy use associated with the specific process or equipment being replaced/rehabilitated, or to produce energy, or eliminate one or multiple pump stations (see more below), the project qualifies for 5 points and is considered a Green Project that may be funded by a CWSRF loan with a one percent interest rate discount. For a project that is primarily, but not exclusively, dedicated to energy reduction, the one percent interest rate discount will apply only to the portion of the loan that covers costs qualifying as a Green Project. The standard interest rate will apply to the portion of the loan covering other aspects of the project.

The energy reduction calculations must be based on how the existing equipment is currently being operated, not on what the reduction would be if equipment were operated at a greater capacity than current typical usage. Energy improvements achieved by repairing malfunctioning equipment cannot be included in energy reduction calculations.

The narrative must:

- Describe and support the expected energy reductions and/or energy production, and
- Include calculations that document the 20% reduction in energy use.

Definition of Primary Purpose

Primary Purpose means that at least 50% of project construction costs must be related to achieving the 20% reduction in energy use, or to produce energy, or elimination of pump stations.

Elimination of pump stations may qualify depending on the impact to downstream facilities. If the sewer flow from the eliminated pump station has to be re-pumped by downstream pump station(s), calculations must be provided demonstrating at least a 20% reduction in overall energy usage considering all impacted pump stations. If a pump station is being eliminated solely via gravity sewer to the receiving WWTP, then no calculations are required.

Example Narratives for Line Item 2.R

Narrative that is NOT sufficient: The replacement of the pumps at the Main Street Pump Station will reduce energy consumption. **(Not sufficient because details about existing and proposed energy consumption and supporting calculations are not provided).**

Narrative that is NOT sufficient: The Main Street Pump Station will be replaced by a new gravity sewer that will deliver wastewater to the Chestnut Road Pump Station, thereby eliminating all energy use at the Main Street Pump Station. (**Not sufficient since the Chestnut Road Pump Station will experience an increase in flow and an increase in energy usage, and no calculations were provided to document a 20% reduction.)**

Narrative that IS sufficient: The replacement of pumps at the Main Street Pump Station will reduce energy consumption by 30% as follows: Current energy usage is 150 MWatt*hour/month. After installation of the new pumps, the energy usage is expected to be only 105 MWatt*hour/month. The energy reduction is therefore 150 -105 = 45 MWatt*hour/month which equals a 30% reduction. Supporting calculations are provided and were based upon the efficiency and horsepower of the proposed pumps.

Narrative that IS sufficient: A town's WWTP activated sludge basin currently uses coarse air bubble diffusers. The project will replace the diffuser system with fine bubble diffusers, and the air blowers will be replaced high efficiency blowers. Calculations provided demonstrate a 28% reduction in the energy consumption for the aeration system.

Category 3 – System Management

Line Item 3.A – Capital Planning Activities

An applicant may qualify for points under only one of the following line items 3.A.1 OR 3.A.2

Line Item 3.A.1 – Asset Management Plan
Wastewater: 10 points *Drinking Water: 10 points*

To earn points under this line item, the Applicant must have implemented an Asset Management Plan **as of the date of the application** that addresses each of the four key areas described below.

This guidance is intended only for the purpose of determining if the applicant qualifies for points under Line Item 3.A.1 of the Priority Rating System Form. This guidance is not intended to be an exhaustive resource for the development of asset management plans, and there are many aspects of asset management that may tie into a system owner's plan (e.g., financial aspects such as GASB 34) that are not evaluated for the purpose of determining qualification for points. There are no requirements that the asset management plan be managed electronically.

To receive points under this line item, the application must include a narrative that clearly explains how the Asset Management Plan addresses each of the four key areas described in this guidance. A copy of the Asset Management Plan is not a substitute for the narrative, and no points will be awarded if a complete narrative is not included. The narrative must include a specific section that addresses each of the following key areas that comprise the applicant's Asset Management Plan. It is not necessary to provide maps with the

narrative, but the applicant's Asset Management Plan must include mapping as described below. The 4 (four) key areas are:

- Inventory of assets including maps;
- Assessment of the condition of the infrastructure in the inventory;
- A capital improvement plan (CIP) with projected cost estimates; and
- An operation and maintenance plan to ensure proper management of the assets.

1. Inventory of Assets: The inventory **must include all** assets owned by the applicant for the applicable utility (water or wastewater), not just the assets involved in the proposed project.

- Waterlines, valves, hydrants and tanks: map with age, type, and size of pipe materials; age and size of valves, hydrants and tanks; the narrative to support Line Item 3A.1 must describe the general age of the pipe segments and valves.
- Gravity Sewers and Forcemains: map with age, type, and size of pipe materials; age, size and materials of manholes; the narrative to support Line Item 3B must describe the general age of the pipe segments and manholes.
- Pump Stations: map and narrative with age, number and capacity of pumps, power reliability, and telemetry
- Water or Wastewater Treatment Plants: process schematic; age, number and capacity of each major treatment unit. Units that were built as part of a larger treatment process at the same time and that are in the same general condition may be grouped together.
- Other Assets (e.g., reclaimed water distribution Systems): provide information as outlined above.

Each asset item (e.g., manhole, line segment, pump station, treatment unit, valve, hydrant, tank) must be given a unique identifier.

2. Condition Assessment

Each asset item included in the Inventory of Assets must be assigned a condition. The assessment of the condition of the infrastructure may be based on:

- Operator knowledge,
- Formal evaluations (e.g., sanitary sewer evaluation study),
- Broad assumptions based on age and type of facilities (e.g., 40 year old concrete pipe can be assumed to be in poor condition), and
- Condition of other similar facilities in the system where formal evaluations have been conducted.

The assessment scale (e.g., excellent – poor condition) is at the discretion of the applicant. The narrative must describe the assessment scale and include a list of categories and a clear explanation of how each category is assigned (e.g., "Poor" rated sewer lines are those with offset joints, significant corrosion, cracks, experience surcharging, etc.)

It is expected that the project for which funding is being sought will address infrastructure in the "poor" category. If it does not, provide a discussion and justification of why this project is proposed for funding when other infrastructure is in greater need of improvement (e.g., other high priority projects are being implemented with local funds).

3. Capital Improvement Plan with Projected Cost Estimates

Provide all of the documentation as required for Line Item 3.A.2 to demonstrate that the Asset Management Plan includes a Capital Improvement Plan.

> **In order to qualify for the points, the project proposed for funding must be included in the CIP.**
>
> **Review of a CIP for the purposes of awarding points for funding priorities in no way absolves the system owner of responsibility for regulatory noncompliance.**

4. Operation and Maintenance Plan

The operation and maintenance (O&M) plan should be based on manufacturers' recommendations and/or typical industry best management practices. The narrative to support Line Item 3.A.1 must describe the applicant's O&M plan.

Notes:

1. Implementation of an Asset Management Plan means that the Applicant has taken specific actions to put into practice the elements that comprise the Plan, and can demonstrate the application of each activity and its outcome.
2. The application must include a narrative describing the Asset Management Plan even if the same application previously received points for an Asset Management Plan.
3. The Asset Management Plan must include all water or wastewater infrastructure assets owned by the applicant, not just the assets involved in the proposed project.
4. For a System Merger project receiving point under Line Item 2.F., the receiving system must have the qualifying Asset Management Plant to earn points.

Line Item 3.A.2 - Capital Improvement Plan

Wastewater: 2 points *Drinking Water: 2 points*

An application may earn points if the Applicant has a capital improvement plan (CIP) adopted by the Applicant within two years of the application date, spanning at least ten years from the date of adoption, including cost estimates for projects scheduled in the first five years, and with the project proposed for funding. The narrative must include the following:

- A resolution or board meeting minutes which clearly shows a motion to approve and adopt the CIP within two years of the application date.
    - A certified true and correct copy of draft meeting minutes is acceptable for meetings held within 45 days of the application deadline;
    - A certification or statement that a CIP was adopted is not sufficient documentation;
    - If a CIP has been amended, the resolution or meeting minutes provided must show that the entire CIP, as revised, has been adopted.
- A statement of the years covered by the CIP, which must extend at least ten years from the most recent adoption date;
- A description sufficient to show that the project described in the CIP is unambiguously the same project seeking funding;

- A printout of the CIP priority matrix with a reasonable forecast of anticipated projects for the applicable utility (water or wastewater) meeting the following requirements:
    - The project must be highlighted on the priority matrix;
    - For the first five years the priority matrix must list both projects and their costs by year;
    - After the first five years, the priority matrix must list both projects and their costs but does not need to specify the year or priority of those projects; and
    - If the Applicant submitted multiple applications, then the CIP priority matrix must show all projects for which applications are submitted or no application will earn these priority points.
- If the proposed project has moved significantly from the projected date in the CIP, explain why the project has been moved ahead of the other projects listed in the CIP.

Line Item 3.B – System Operating Ratio

Wastewater: 5 points *Drinking Water: 5 points*

The application earns points if either of the following is true:

- The Applicant's Operating Ratio is greater than or equal to 1.00, or
- The Applicant's Operating Ratio is less than 1.00 and the unit cost is greater than 2.5% of MHI.

Operating Ratio ≥ 1.00

If the Applicant's Operating Ratio is equal to or greater than 1.00, the application earns points. Calculate the Operating Ratio using the formula below:

$$\textbf{Operating Ratio} = \frac{\textbf{Operating Revenues}}{(\textbf{Total Expenditures} + \textbf{Debt Principal} + \textbf{Interest} + \textbf{Capital Outlay})}$$

Provide the revenues and expenditures for the water and sewer enterprise fund (separate from other revenues) for the most recent audit year approved by the LGC. However, to account for unusual circumstances (for example, to account for large variations in capital expenditures or the use of reserve accounts) average the revenues and expenditures over the last five years. The narrative must clearly describe the circumstances that justify the use of this five year average. If separate water and sewer enterprise funds are maintained, the Operating Ratio must be calculated using only the fund applicable to the project type.

Present the calculations in the narrative.

Calculation Notes:

In the narrative and calculation, use the same values entered in the Division application for System Parameters (Section 2) and Financial Information Form.

- **Do not** include "Non-operating Revenues" in the numerator.
- Do not include any future revenues.
- Present "Total Expenditures" from the Financial Information Form
- Present "Debt Principal", "Interest" and "Capital Outlay" from the Financial Information Form; "Capital Outlay" is defined as funded from the enterprise fund.
- Report the Operating Ratio to two decimal points. An operating ratio of 0.99 does not qualify for points.

Operating Ratio < 1.0 and Rate/MHI >2.5%

If the operating ratio is less than 1.0 and the combined water and sewer rate as a percent of median household Income is greater than 2.5%, the application earns points. The narrative must present both the Operating Ratio as calculated above and the Combined Water and Sewer Rate as a percent of Median Household Income as calculated below:

$$\boldsymbol{Combined\ Water\ and\ Sewer\ Rate\ as\ \%\ MHI} = \mathbf{100} \times \left(\frac{\boldsymbol{Current\ Combined\ Residential\ Water\ and\ Sewer\ Bill\ for\ 5{,}000\ \frac{gal}{month}}}{\left(\frac{\boldsymbol{MHI}}{\mathbf{12}}\right)} \right)$$

Calculation Notes:

In the narrative and calculation, use the same values entered in the Division application for System Parameters (Section 2).

- **Include the Official Rate Sheets for both water and sewer service. Otherwise the ratio is calculated solely based on the one included Official Rate Sheet.**
- Using the lowest residential rate available (typically, the "inside rate") calculate the residential monthly rate for 5,000 gallons for water and sewer service. Show all calculations.
- Report the results as "Monthly Rate for 5,000 Gallons" on the Division application for System Parameters (Section 2).
- Obtain the current statistics for median household income to be used in this calculation from the Division of Water Infrastructure website https://deq.nc.gov/about/divisions/water-infrastructure/i-need-funding/application-forms-and-additional-resources
- For systems without adopted rates, enter "0" (zero).
- If calculations are missing, incomplete or inconsistent, or if the Official Rate Sheet is missing, the application earns no points for this line item.

Line Item 3.C – DWR-Approved Source Water or Wellhead Protection Plan

Wastewater: Not Applicable *Drinking Water: 5 points*

To earn points under this line item, the Applicant must demonstrate that they have a voluntary source water protection or wellhead protection plan that has been approved by the Public Water Supply Section (PWS) of DWR **no more than five years before the application deadline**. The narrative must include a copy of the voluntary source water protection or wellhead protection plan approval letter by the PWS Section of DWR. **The PWSID number and name on the approval letter must match that of the Applicant or the benefitting Public Water Supply**.

Note: If you cannot find your approval letter, please contact Rebecca Sadosky at 919.707.9096 or at rebecca.sadosky@ncdenr.gov.

Line Item 3.D – Water Loss Reduction Program

Wastewater: Not Applicable *Drinking Water: 5 points*

To earn points under this line item, the Applicant must document a Water Loss Reduction Program that includes water audits and hidden leak detection and repair. To document these priority points, provide the following:

- An annual water audit for each of the past three years. Applicants may use the Division of Water Resources Small System Water Audit or the AWWA Water Loss Control Committee Free Water Audit Software. The audit must include both a data table and graphs showing the following for each of the past three years:
  - The volume of water produced each month;
  - The volume of unaccounted-for water each month; and
  - The unaccounted-for water as a percent of total water produced each month.

  The data table must also report the annual average unaccounted-for water as a percent of total water for each of the past three years.

Note: The *Division of Water Resources Small System Water Audit* and the *AWWA Water Loss Control Committee Free Water Audit Software* are available through the following website http://deq.nc.gov/node/82921.

Accounted-for water is generally quantified by meters. However, water quantified by other methods can also be included in accounted-for water. For example, water may be flushed from a hydrant through an orifice that allows an estimate of the quantity of water release. Unaccounted-for water is defined as the difference between total water produced (generally metered at the source) and the accounted-for water.

Note: To earn points, you must either show very low leakage or show an ongoing and continuous program to track down and repair hidden leaks. **Promptly fixing found leaks does not earn points.**

If the water audit shows that the percent of total unaccounted-for water is less than 10% for each of the past three consecutive years or the *AWWA Water Loss Control Committee Free Water Audit Software* calculates an Infrastructure Leak Index (ILI) less than 1.2 for each of the past three consecutive years, the audit

sufficiently documents the priority points for this line item. Otherwise, the application must also include documentation of an ongoing and continuous program to track down and repair hidden leaks (leaks that are not visible, obvious or accidentally-discovered). Hidden leak detection requires the use of technology that extends the human senses.

To document these priority points, provide the following:

- Describe the ongoing and continuous program to track down and repair hidden (not obvious or accidentally discovered) leaks by answering the following questions:
  - Who does the leak detection? (e.g., town staff or the Rural Water Association),
  - How often is the system surveyed for leaks? (must be at least annual), and
  - What equipment (e.g., acoustic or ultrasonic) was used for the survey,
  - Does the system own the equipment, or does the system borrow / rent the equipment (and from whom)?
- Provide records of the past three leak detection surveys, including the following:
  - The date of the survey;
  - The scope of the survey. State either "the entire transmission and distribution system was surveyed", or provide a map of the entire transmission and distribution system showing the areas covered by each survey; and
  - The location of each leak found.
- To show an ongoing and continuous program to track down and repair hidden leaks, the most recent survey must have been performed no more than one calendar year before the application deadline.
- For each leak found in the most recent survey provide the following information:
  - Whether / when the leak was repaired, and
  - If the leak was not repaired, then describe why it was not repaired. For example, is the repair of the leak the subject of an application submitted to the Division? Does the repair of the leak appear as a project in the CIP? Does the system have written standard operating procedures for prioritizing leaks?

Example Narratives for Line Item 3.D

Narrative that is NOT sufficient – audit only: The attached water audits show that the unaccounted-for water for the most recent three years was 9.0%, 13.6% & 9.0%. Although the unaccounted-for water for the three years averaged 10.53%, which exceeds 10%, the unaccounted-for water during two of the three years was less than 10%, so the project should earn these points**.** ***(Not sufficient because to earn the points, the unaccounted-for water for each of the last three years must be less than 10%.)***

Narrative that is sufficient – audit only: The attached water audits show that the unaccounted-for water for each of the most recent three years was 8%, 7% & 6%. Because the unaccounted-for water for each of the past three years was less than 10%, the project earns these points**.**

Example Narratives for Line Item 3.D

Narrative that is insufficient – leak detection by visual inspection: The three attached water audits show that the unaccounted-for water for the most recent year was 38%. Because the unaccounted-for water was more than 10%, the system must demonstrate hidden leak detection and repair.

Town of Smallville staff drive around the entire distribution system first thing every morning and last thing every evening looking for leaks. They also routinely stop passers-by and ask if they saw any leaks. Records of 730 such visual inspections and 350 interactions with passers-by in the past calendar year are attached, as are records of repair of four of the five discovered leaks. Because its repair is so expensive, the fifth discovered leak appears on the CIP as project # 1452, and is the subject of this application. ***(Not sufficient because to earn the points, the Applicant must look for hidden leaks that are not visible, obvious or accidentally-discovered)***

Narrative that is sufficient – hidden leak detection by contract: The three attached water audits show that the unaccounted-for water for the most recent year was 38%. Because the unaccounted-for water was more than 10%, the system must demonstrate hidden leak detection and repair.

For the past five years the Town of Smallville contracted with the Rural Water Authority to survey the town's waterlines twice a year using Sonoric-brand LeakTrex© ultrasonic leak detector. The cover page and results tables of the past three RWA reports are attached, as are records of repair of four of the five discovered leaks. Because its repair is so expensive, the fifth discovered leak appears on the CIP as project #1452 and is the subject of this application.

Narrative that is sufficient – hidden leak detection by town staff: The three attached water audits show that the unaccounted-for water for the most recent year was 38%. Because the unaccounted-for water was more than 10%, the system must demonstrate hidden leak detection and repair.

Starting in June of 2013 the Town staff survey the town's waterlines twice a year using rented Sonoric-brand detectors (Models 300 and 320). The results tables of the past three surveys performed by Town of Smallville staff are attached, as are records of repair of four of the five discovered leaks. Because its repair is so expensive, the fifth discovered leak appears on the CIP as project # 1452, and is the subject of this application.

Line Item 3.E – Water Conservation Incentive Rate

Wastewater: Not Applicable *Drinking Water: 3 points*

To earn points under this line item, the Applicant must demonstrate that it has a water conservation incentive rate structure in place. The narrative must include:

- A water rate sheet that has been adopted by the Applicant. The rate structure must meet both of the following requirements:
    - The price per gallon of additional water use must increase within the first 5,000 gallons of use (*i.e.*, the break must occur no greater than 4,999 gallons); and
    - The price per gallon of additional water use cannot decrease within the first 20,000 gallons of use.

Note: The price per gallon of additional water use is an actual price per gallon, not a calculated "effective rate." The following examples illustrate this point:

Example Rate Structure #1

- $10 flat fee
- $3/kgal for 1 gallon to 2,000 gallons
- $3.50/kgal for 2,001 to 10,000 gallons
- $2/kgal above 10,000 gallons

This rate structure does not qualify because the rate decreases before 20,000 gallons of use.

Example Rate Structure #2

- $10 for first 3,000 gallons
    - Note that $10/3,000 gallons is an "effective rate" of $3.33/kgal
- $3.50/kgal above 3,000 gallons

This rate structure does not qualify because one cannot compare the $3.50/kgal price to the "effective rate" of the flat fee portion of the bill. The increase in cost per gallon of additional use must occur between two ranges that charge per gallon of use.

Example Rate Structure #3

- $10 flat fee
- $3/kgal up to 2,000 gallons
- $3.50/kgal from 2,001 to 25,000 gallons
- $2/kgal above 25,000 gallons

This rate structure qualifies.

Category 4 –Affordability

Category 4 provides points related to affordability. Additionally, the affordability criteria are required to determine grant eligibility and, if eligible, the percentage of grant/loan/principal forgiveness mix.

Line Item 4.A – Residential Connections

Wastewater: 2-8 Points *Drinking Water: 2-8 points*

An Applicant may qualify for only **ONE** of the following sub-categories (Line Items 4.A.1-4.A.3) based on the number of residential connections that you reported on the Application for Funding. *For wastewater applications, count only sewer connections. For drinking water applications, count only drinking water connections.*

- Line Item 4.A.1 – Less than 10,000 residential connections (2 Point); OR
- Line Item 4.A.2 – Less than 5,000 residential connections (4 Points); OR

- Line Item 4.A.3 – Less than 1,000 residential connections (8 Points).

To determine residential connections, list on the Application for Funding the number of residential connections *in the system's entire service area*.

Some systems serve additional customers yet record flow through a bulk connection. If this is the case, then all residential connections served by the bulk connection must be considered. Please see the supplemental guidance available at https://deq.nc.gov/about/divisions/water-infrastructure/i-need-funding/application-forms-and-additional-resources.

Notes: 1. **Use these residential connections in Line Item 4.A of the Priority Rating System for water and wastewater projects.**

2. For projects seeking funding through a construction program *other than the CDBG-I program*, if the entire service area has greater than 20,000 *residential* connections, then the system is only eligible for a 100% loan.

Example for Line Item 4.A

The Bixby-Hadley Water and Sewer Authority serves two towns, the Town of Bixby and the Town of Hadley. Bixby has 12,500 residential connections in their sewer system while the Town of Hadley has 8,000 residential connections. They wish to complete a collection system rehabilitation and replacement project. Due to the number of residential connections within the service area of the Bixby-Hadley Water and Sewer Authority (20,500), they are eligible for a 100% loan.

Line Item 4.B – Current Monthly Utility Rate at 5,000 Gallons

Wastewater: 4-10 Points *Drinking Water: 4-10 Points*

An Applicant may qualify for only **ONE** of the following sub-categories (Line Items 4.B.1-4.B.4) based on the current monthly combined water and sewer utility rate at 5,000 gallons as shown on the rate sheet submitted with the application.

- Line Item 4.B.1 – Greater than $79 (4 Points) **OR**
- Line Item 4.B.2 – Greater than $90 (6 Points) **OR**
- Line Item 4.B.3 – Greater than $107 (8 Points) **OR**
- Line Item 4.B.4 – Greater than $129 (10 Points).

Use the lowest in-town rate. Provide rate sheets and show all calculations.

- For single-utility water providers: Estimate the combined utility by dividing the water rate for 5,000 gallons by 0.4.
- For single-utility sewer providers: Estimate the combined utility by dividing the sewer rate for 5,000 gallons by 0.6.

To document this line Item, provide the following:

- a copy of the most recent official water and sewer rate sheets in effect at the time of the application as part of the supporting documentation in Section 4 of the priority points narrative.
    - An "after-the-fact" application that earns priority under Line Items 1.A and 2.F can use the official rate sheet for the consolidated system that was in effect on the date of consolidation.
- A clear calculation or description of how the bill for monthly use of 5,000 gallons is calculated.

Calculation Notes:

In the narrative and calculation, use the same values entered in the Division application for System Parameters (Section 2).

- **Include the Official Rate Sheet.**
- Using the lowest residential rate available (typically, the "inside rate") calculate the residential monthly rate for 5,000 gallons for water and sewer service. Show all calculations.
- Report the results as "Monthly Rate for 5,000 Gallons" on the Division application for System Parameters (Section 2).
- $\frac{DW\ Single\ Provider\ Rate\ per\ 5000\ gallons}{0.4} = Combined\ Utility\ Rate\ for\ Affordablty\ Caculator$
- $\frac{WW\ Single\ Provider\ Rate\ per\ 5000\ gallons}{0.6} = Combined\ Utility\ Rate\ for\ Affordablty\ Caculator$

Line Item 4.C – Local Government Unit (LGU) Indicators

Wastewater: 3-7 Points *Drinking Water: 3-7 Points*

An Applicant may qualify for only **ONE** of the following sub-categories (Line Items 4.C.1-4.C.3) based on the LGU Economic Indicators reported on the Application for Funding:

- Line Item 4.C.1 – 3 out of 5 LGU indicators worse than state benchmark (3 points) **OR**
- Line Item 4.C.2 – 4 out of 5 LGU indicators worse than state benchmark (5 points) **OR**
- Line Item 4.C.3 – 5 out of 5 LGU indicators worse than state benchmark (7 points).

These indicators show whether or not an Applicant is faring better or worse in terms of these indicators than the state median. The indicators that the Division utilizes for this determination are as follows:

- Percent population change
- Poverty rate[5]
- Median household income[6]
- Unemployment
- Property valuation per capita

Notes: 1. State Benchmarks for Economic Indicators for this cycle are
- Population change – 4.16%

[5] Applicable to Line Item 4.F of the CDBG-I scoresheet.
[6] Applicable to Line Item 4.G of the CDBG-I scoresheet.

- Poverty rate –16.1%
- Median household income – $50,320
- Unemployment – 4.3%
- Property valuation per capita (not applicable to the CDBG-I program) – $108,30

2. Use information either from the tables provided by the Division or the affordability calculator provided on the Division's website.

To assist in determining whether local government unit (LGU) economic indicators are better or worse than the state benchmarks, the Division has developed two tables (one for places and one for counties) that are available for use in completing the information for affordability criteria. These tables must be used in completing information for population change, poverty rate, median household income, and unemployment. Additionally, this information may also be found in the affordability calculator that is available on the Division's website. This calculator may be found at https://deq.nc.gov/about/divisions/water-infrastructure/i-need-funding/application-forms-and-additional-resources#additional-resources.

For municipalities that cross multiple counties, use the average of the unemployment rates.

List each LGU indicator in Section 2 on the Application for Funding.

Several situations may occur in which alternate data may be utilized. These are listed below.

Percent Population Change

1. Some situations may exist where the Applicant determines that the ACS data are not accurate. If this is the case, then data from the Office of State Budget and Management (OSBM) may be used in lieu of the ACS data.[7] When OSBM data are used, provide as supporting documentation the reason for using the OSBM data and the data page with the Applicant highlighted.

2. Some cases may exist where a resident institution such as a prison, juvenile hall, or nursing home facility may open and impact the population during the five-year period under consideration for percent population change. If such a situation exists in a LGU, then the institutional population may be deducted from the most recent population before the calculation for percent change in population is made. Provide supporting documentation that shows the facility name, the number of the institutionalized population, and the year the facility opened.

Example for Line Item 4.C (Population Change)

In 2013, the Town of Klondike opened a juvenile detention facility that houses 400 residents. According to the ACS data, the Town in 2010 had a population of 16,500 residents and now in 2014 had a population of 17,400 residents, resulting in a percent population change of 5.45% change in population, which would put them at better than the state benchmark. However, removing the resident population of the detention center resulted in a population change of 500 people (3.03%), which put them at worse than the state benchmark. To receive credit, the Town included supporting documentation that showed the number juvenile residents when the facility opened and the fact that the facility opened in 2013.

[7] The website for the starting point for accessing OSBM data is http://www.osbm.nc.gov/facts-figures.

Property Valuation per Capita

In many cases, utilize the total taxable property value reported in the most current audit for the LGU. Use the total taxable property value and divide it by the population of the LGU found on the Division's data sheets referenced above to calculate property valuation per capita.

Note:	If the Applicant does not have an audit that is current and on file with the LGC, then the Applicant does not get credit for the property valuation per capita indicator. In its analysis, Division staff will count that particular parameter as better than the state benchmark.

If the service area is outside of a municipality, then three options exist.

1. The county property valuation per capita figure may be used.

2. If the service area is in a defined area such as a CDP, then the Applicant may utilize tax maps to determine the total taxable property value within the defined area. That result would then be divided by the population in the CDP. As supporting documentation, provide a map that shows the boundaries of the CDP and service area. Additionally, provide a copy of the spreadsheet used to calculate the CDP's total taxable property value and property valuation per capita. This may be supplied either in hard copy or on CD.

3. For a service area such as a subdivision that is not in a defined CDP, the Applicant may utilize tax maps to determine the total taxable property value of the area. Estimate the population of the area by determining the total number of houses and using the persons per household figure for the county. This information may be found in the ACS data available online. Supply as part of the Section 4 documentation a map showing the total number of houses in the service area, a spreadsheet of the total taxable property value calculation, the persons per household for the county from the ACS, and the calculation of the service area population as well as property valuation per capita.

Example for Line Item 4.C (Property Valuation per Capita)

Landry county has a wastewater project that will run sewer to the Newcomb subdivision, a large subdivision of 500 homes that has been on failing septic systems. The property valuation per capita of Landry County is $105,000, which is over the state benchmark. Based on local knowledge, county staff know that the subdivision is more impoverished than the rest of the county. Using a GIS, they determined the total taxable property within the subdivision to be $114,475,000. To estimate the population within the subdivision, they utilized the ACS persons per household estimate for the county (2.41 persons per household) and derived an estimated population of 1,205 people. Dividing a total taxable property value by the estimated population yields a property valuation per capita of $95,000. This is worse than the state benchmark. The county submitted supporting documentation for the calculation and received credit for the LGU economic indicator.

Weighted Averaging

There may be situations that arise where a system such as a water and sewer authority or a water system covers multiple LGUs. Figure 2 shows a graphical example of a system's service area that crosses multiple jurisdictions. If this occurs, then use a weighted average to determine each of the economic indicators.

If calculating economic parameters across multiple jurisdictions, supply a map showing the service area, the LGUs within the service area, and the percentage of each the service area within each LGU. For each indicator, show the calculations that led to the data entered into the affordability portion of the application. Note that the calculator allows up to four different areas to be entered and will calculate the LGU parameters.

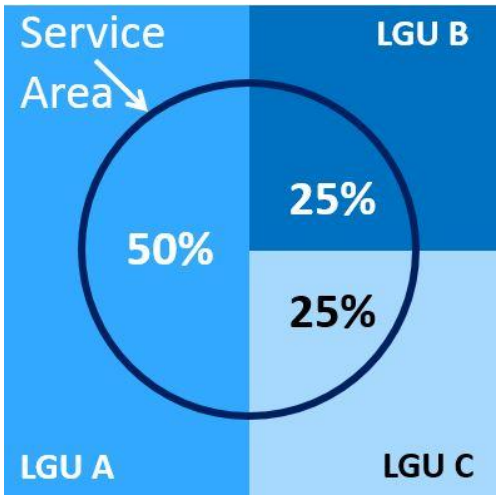


Figure 1. Graphical Example of Multiple Service Areas

Note: Outside-rate customers are not to be considered when conducting weighted averaging.

Example for Line Item 4.C (Weighted Averaging)

The Town of Central is a regionalized system that serves the entire town (60% of the service area) as well as the Town of Bixby (30% of the service area) and part of the county (10% of the service area). The Town determined population changes for each of the areas as follows:

- Central: 5.5%
- Bixby: 5.0%
- County: 8.5%

Using the following calculation, they determined the percent population growth for their service area to be 5.65%% by using the following equation:

$PopGrowth_{Total}$= (0.6*5.5%) + (0.3*5.0%) + (0.1*8.5%) = 5.65%

That would place the Town at better than the state benchmark.

Line Items 4.D, 4.E, & 4.F —Reserved for the CDBG Program

Appendix A: Priority Rating System Score Sheets

PRIORITY RATING SYSTEM for Wastewater Projects			
Instructions: For each line item, mark "X" to claim the points for that line item. Be sure that your narrative includes justification for every line item claimed. At the end of each Category, provide the total points claimed for each program in the subtotal row for that category. Then add the subtotals from each category and enter the Project Total in the last line. Note that some categories have a maximum allowed points that may be less than the total of individual line items.			
Line Item #	**Category 1 – Project Purpose**	**Claimed Yes/No**	**Points**
1.A	Project will consolidate a nonviable drinking water or wastewater utility		25
1.B	Project will resolve failed infrastructure issues		15
1.C	Project will rehabilitate or replace infrastructure		15
1.C.1	Treatment units, pumps and/or pump stations to be rehabilitated or replaced are greater than 20 years old, **OR water/sewer** lines, storage tanks, drinking water wells or intake structures to be rehabilitated or replaced are greater than 40 years old		10
1.D	Project will expand infrastructure		2
1.D.1	Treatment units, pumps and/or pump stations to be rehabilitated or replaced are greater than 20 years old, **OR** lines, storage tanks, drinking water wells or intake structures to be rehabilitated or replaced are greater than 40 years old		10
1.E – 1.E.2	Reserved for Other Programs		
1.F	Project will provide stream/wetland/buffer restoration		15
1.F.1	Restoration project that includes restoration of a first order stream and includes stormwater infiltration BMPs		5

Line Item #	Category 1 – Project Purpose (Continued)	Claimed Yes/No	Points
1.F.2	Restoration project that includes restoration and / or protection of riparian buffers to at least 30 feet on both sides of the stream		5
1.G	Project will provide stormwater BMPs to treat existing sources of pollution		20
1.G.1	Project that includes BMPs or BMPs in series that achieve at least 35% nutrient reduction (both TN and TP) and 85% TSS reduction		10
1.H	Project will provide reclaimed water/usage or rainwater harvesting/usage		15
	Maximum Points for Category 1 – Project Purpose		25
	Subtotal claimed for Category 1 – Project Purpose		
Line Item #	**Category 2 – Project Benefits**	**Claimed Yes/No**	**Points**
2.A – 2.B	Reserved for Other Programs		
2.C	Project provides a specific environmental benefit by replacement, repair, or merger; includes replacing failing septic tanks		15
2.D	Project addresses promulgated but not yet effective regulations		10
2.E	Project directly addresses enforcement documents		
2.E.1	Project directly addresses an EPA Administrative Order for a local government Applicant located in a Tier 1 county, or addresses an existing or pending SOC, or a DEQ Administrative Order, **OR**		5

Line Item #	Category 2 – Project Benefits (Continued)	Claimed Yes/No	Points
2.E.2	Project directly resolves a Notice of Violation or Notice of Deficiency		3
2.F	Project includes system merger		10
2.G – 2.H	Reserved for Other Programs		
2.I	Project improves treated water quality by adding or upgrading a unit process		3
2.J – 2.M	Reserved for Other Programs		
2.N	Project provides resiliency for critical system functions		
2.N.1	Project relocates infrastructure from inside 100-year floodplain to outside 500-year floodplain **OR**		8
2.N.2	Project relocates infrastructure out of a 100-year floodplain **OR**		5
2.N.3	Project relocates infrastructure from between the 100-year and 500-year floodplains to outside the 500-year floodplain **OR**		3
2.N.4	Project fortifies or elevates infrastructure within floodplain **OR**		4
2.N.5	Project improves ability to assure continued operation during flood events **OR**		4
2.N.6	Project reduces the size of infrastructure as a result of a buyout or other abrupt loss of population **OR**		4
2.N.7	Project provides redundancy/resiliency for critical treatment and/or transmission/distribution system functions including backup electrical power source.		3
2.O	Project directly benefits subwatersheds that are impaired as noted on the most recent version of the Integrated Report		20
2.P	Project directly benefits waters classified as HQW, ORW, Tr, SA, WS-I, WS-II, WS-III* or WS-IV* (* these		10

	classifications must be covered by an approved Source Water Protection Plan to qualify)		
2.Q	Project will result in elimination of an NPDES discharge		3
Line Item #	**Category 2 – Project Benefits (Continued)**	**Claimed Yes/No**	**Points**
2.R	Primary purpose of the project is to achieve at least 20% reduction in energy use		5
	Maximum Points for Category 2 – Project Benefits		35
	Subtotal claimed for Category 2 – Project Benefits		
Line Item #	**Category 3 – System Management**	**Claimed Yes/No**	**Points**
3.A	Capital Planning Activities		
3.A.1	Applicant has implemented an Asset Management Plan as of the date of application **OR**		10
3.A.2	Applicant has a current Capital Improvement Plan (CIP) that spans at least 10-years and proposed project is included in the plan		2
3.B	System Operating Ratio is greater than or equal to 1.00 based on a current audit, or is less than 1.00 and unit cost is greater than 2.5%		5
3.C – 3.E	Reserved for Other Programs		
	Maximum Points for Category 3 – System Management		15
	Subtotal claimed for Category 3 – System Management		
Line Item #	**Category 4 – Affordability**	**Claimed Yes/No**	**Points**
4.A	Residential Connections		
4.A.1	Less than 10,000 residential connections **OR**		2
4.A.2	Less than 5,000 residential connections **OR**		4

4.A.3	Less than 1,000 residential connections		8
4.B	Current Monthly Combined Utility Rates at 5,000 Usage		
4.B.1	Greater than $79 **OR**		4
Line Item #	**Category 4 – Affordability (Continued)**	**Claimed Yes/No**	**Points**
4.B.2	Greater than $90 **OR**		6
4.B.3	Greater than $107 **OR**		8
4.B.4	Greater than $129		10
4.C	Local Government Unit (LGU) Indicators		
4.C.1	3 out of 5 LGU indicators worse than state benchmark **OR**		3
4.C.2	4 out of 5 LGU indicators worse than state benchmark **OR**		5
4.C.3	5 out of 5 LGU indicators worse than state benchmark		7
4.D – 4.E	Reserved for Other Programs		
	Maximum Points for Category 4 – Affordability		25
	Subtotal claimed for Category 4 – Affordability		
	Total of Points for All Categories		

PRIORITY RATING SYSTEM for Drinking Water Projects			
Instructions: For each line item, mark "X" to claim the points for that line item. Be sure that your narrative includes justification for every line item claimed. At the end of each Category, provide the total points claimed for each program in the subtotal row for that category. Then add the subtotals from each category and enter the Project Total in the last line. Note that some categories have a maximum allowed points that may be less than the total of individual line items.			
Line Item #	**Category 1 – Project Purpose**	**Claimed Yes/No**	**Points**
1.A	Project will consolidate a nonviable drinking water or wastewater utility		25
1.B	Project will resolve failed infrastructure issues		25
1.C	Project will rehabilitate or replace infrastructure		12
1.C.1	Treatment units, pumps and/or pump stations to be rehabilitated or replaced are greater than 20 years old, **OR water/sewer** lines, storage tanks, drinking water wells or intake structures to be rehabilitated or replaced are greater than 40 years old		8
1.D	Project will expand infrastructure		2
1.D.1	Treatment units, pumps and/or pump stations to be rehabilitated or replaced are greater than 20 years old, **OR** lines, storage tanks, drinking water wells or intake structures to be rehabilitated or replaced are greater than 40 years old		8
1.E – 1.H	Reserved for Other Programs		
	Maximum Points for Category 1 – Project Purpose		25
	Subtotal claimed for Category 1 – Project Purpose		
Line Item #	**Category 2 – Project Benefits**	**Claimed Yes/No**	**Points**
2.A – 2.A1.	Reserved for Other Programs		
2.B	Project provides a specific public health benefit to a public water supply system by replacement, repair, or merger; includes replacing dry wells, addressing contamination of a drinking water source by replacing or additional treatment; or resolves managerial, technical & financial issues		20

Line Item #	Category 2 – Project Benefits (Continued)	Claimed Yes/No	Points
2.C	Reserved for Other Programs		
2.D	Project addresses promulgated but not yet effective regulations		10
2.E	Project directly addresses enforcement documents		
2.E.1	Project directly addresses an EPA Administrative Order for a local government Applicant located in a Tier 1 county, or addresses an existing or pending SOC, or a DEQ Administrative Order, **OR**		5
2.E.2	Project directly resolves a Notice of Violation or Notice of Deficiency		3
2.F	Project includes system merger		10
2.G	Project addresses documented low pressure		10
2.H	Project addresses contamination		
2.H.1	Project addresses acute contamination of a water supply source **OR**		15
2.H.2	Project addresses contamination of a water supply source other than acute **OR**		10
2.H.3	Project addresses an emerging compound without a MCL but above a health advisory level		7
2.I	Project improves treated water quality by adding or upgrading a unit process		3
2.J	Water loss in system to be rehabilitated or replaced is 30% or greater		3
2.K	Project provides a public water system interconnection		
2.K.1	Project creates a new interconnection between systems not previously interconnected **OR**		10
2.K.2	Project creates an additional or larger interconnection between two systems already interconnected which allows one system's public health water needs to be met during an emergency **OR**		10
2.K.3	Project creates any other type of interconnection between systems		5
2.L – 2.M	Reserved for Other Programs		

Line Item #	Category 2 – Project Benefits (Continued)	Claimed Yes/No	Points
2.N	Project provides resiliency for critical system functions		
2.N.1	Project relocates infrastructure from 100-year floodplain to outside 500-year floodplain **OR**		8
2.N.2	Project relocates infrastructure out of a floodplain **OR**		5
2.N.3	Project relocates infrastructure from between the 100-year and 500-year floodplains to outside the 500-year floodplain **OR**		3
2.N.4	Project fortifies or elevates infrastructure within floodplain **OR**		4
2.N.5	Project improves ability to assure continued operation during flood events **OR**		4
2.N.6	Project reduces the size of infrastructure as a result of a buyout or other abrupt loss of population **OR**		4
2.N.7	Project provides redundancy/resiliency for critical treatment and/or transmission/distribution system functions including backup electrical power source.		3
2.O – 2R	Reserved for Other Programs		
	Maximum Points for Category 2 – Project Benefits		35
	Subtotal claimed for Category 2 – Project Benefits		
Line Item #	**Category 3 – System Management**	**Claimed Yes/No**	**Points**
3.A	Capital Planning Activities		
3.A.1	Applicant has implemented an Asset Management Plan as of the date of application **OR**		10
3.A.2	Applicant has a current Capital Improvement Plan (CIP) that spans at least 10-years and proposed project is included in the plan		2
3.B	System Operating Ratio is greater than or equal to 1.00 based on a current audit, or is less than 1.00 and unit cost is greater than 2.5%		5
3.C	Applicant has an approved Source Water Protection Plan and/or a Wellhead Protection Plan		5
3.D	Applicant has implemented a water loss reduction program		5

3.E	Applicant has implemented a water conservation incentive rate structure		3
	Maximum Points for Category 3 – System Management		15
	Subtotal claimed for Category 3 – System Management		
Line Item #	**Category 4 – Affordability**	**Claimed Yes/No**	**Points**
4.A	Residential Connections		
4.A.1	Less than 10,000 residential connections **OR**		2
4.A.2	Less than 5,000 residential connections **OR**		4
4.A.3	Less than 1,000 residential connections		8
4.B	Current Monthly Combined Utility Rates at 5,000 Usage		
4.B.1	Greater than $79 **OR**		4
4.B.2	Greater than $90 **OR**		6
4.B.3	Greater than $107 **OR**		8
4.B.4	Greater than $129		10
4.C	Local Government Unit (LGU) Indicators		
4.C.1	3 out of 5 LGU indicators worse than state benchmark **OR**		3
4.C.2	4 out of 5 LGU indicators worse than state benchmark **OR**		5
4.C.3	5 out of 5 LGU indicators worse than state benchmark		7
4.D	Reserved for the CDBG Program		
4.E	Reserved for the CDBG Program		
	Maximum Points for Category 4 – Affordability		25
	Subtotal claimed for Category 4 – Affordability		
	Total of Points for All Categories		